Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

July 18, 1960

RUMBLINGS IN WORLD METHANOL MARKET

OPD SPECIAL 'DEPTH' REPORT PAGE FIVE

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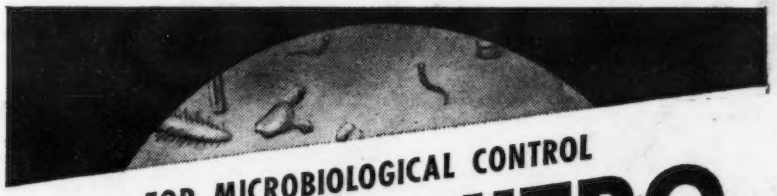

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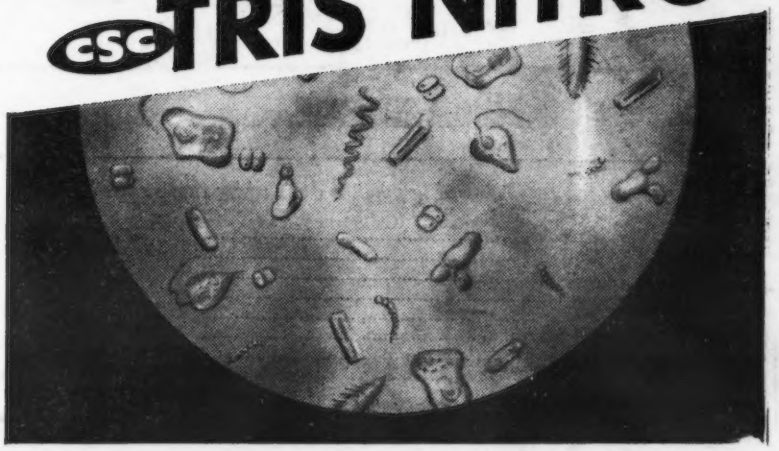
CSC **TRIS NITRO**



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pH of 0.1M Aqueous Solution at 20°C	4.5
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Cadmium Iodide, Reagent Crystal
Cadmium Nitrate, Reagent Crystal
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Cadmium Sulfate, Reagent Anhydrous Powder

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Cupric Acetate, Reagent Crystal
Cupric Bromide, Reagent Crystal
Cupric Carbonate, Reagent Powder
Cupric Chloride, Reagent Crystal
Cupric Chloride, Purified Crystal
Cupric Nitrate, Reagent Crystal
Cupric Oxide, Reagent Powder
Cupric Oxide, Reagent Wire
Cupric Sulfate, Reagent Anhydrous Powder
Cupric Sulfate, Reagent Large Crystal
Cupric Sulfate, Reagent Fine Crystal
Cupric Sulfate, N.F. Crystal
Cuprous Chloride, Reagent Powder
Cuprous Cyanide, C.P. Powder
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Nickel Sulfate, Reagent Crystal

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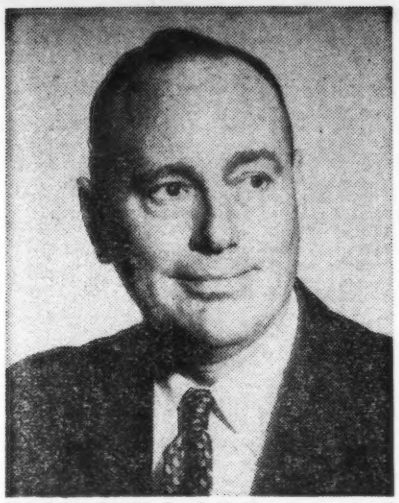

DIVISION CHIEF: Frank M. Norton, appointed president of the plastics and coal chemicals division of Allied Chemical Corporation, New York. He had been executive vice-president.

GATT Negotiators Hear Cry: The Nation's Tariff Position Should Not Be Bargained Off

American negotiators, when they journey to Geneva next September for the start of talks with other nations belonging to the General Agreement on Tariffs & Trade, will carry with them this admonition from an aroused US chemical industry: Take care that you don't bargain away the nation's tariff position—one of its most vital resources. That warning, in substance, came from a score or more of chemical representatives who went to Washington last week to air their fears and objections before the Tariff Commission and the Committee for Reciprocity Information.

Their aim was to stall any further lowering of US tariffs on a host of chemical products slated to be laid on the Geneva bargaining table by the State department.

Forum Competition the Theme

The theme of their testimony, which was echoed before each of the governmental groups at all-day sessions running continuously during the week, was that foreign chemical suppliers, with their lower production costs, have little or no trouble invading the American market even at the present level of duties.

Therefore they asked: Why reduce tariffs any further?

Such action can spell death to many small producers already hard-pressed to hang on to their markets in competition with other American producers, the chemical people pointed out.

Testimony centered largely on the coaltar dyes and intermediates which the State department, in its product list, detailed in many cases. But it also insisted upon including "basket clause" phrases that leaves industry without knowledge of what products may eventually wind up on the bargaining bench. This year was the first time that the products of the coaltar industry have been projected into lots.

Chief spokesman for industry in the attacks was Sam G. Baker, president of

—Continued on page 74

ASSUMES NEW ROLE: James W. Flynn, appointed vice-president and director of marketing by Celanese Polymer Company, a division of Celanese Corporation of America, New York.

Color Producers To Prove Safety: Now It's the Law

The color producing industry, offering its products to the food, drugs and cosmetic people, is today under compulsion to show the government its products are "safe" for the uses intended.

This became a fact on July 12 when President Eisenhower signed the Hill-Harris color additives bill, S 2197, into law. Food & Drug Administration, which is called upon to administer the law, will shortly issue directions to suppliers of color additives on how to proceed to comply with the law.

Removal of a Threat

For the producers of lipstick colors and the lipstick producers in particular, the signing of the bill into law removes the threat that has been hanging over the industry's head for the past year—a threat of seeing fourteen of their most important colors banned from further use because they could not meet the requirement of the old coaltar color law that they be judged "harmless."

While FDA is silent as to the course it intends to pursue with regard to the order it had in preparation (banning the fourteen lipstick colors)—stating for the record only that "the matter is under consideration"—it is generally expected that all the proceedings taken towards issuing the ban order will be washed out and the provisions of the new law applied.

This is the hope and expectation of the Certified Color Industry Committee, which along with the Toilet Goods Association and Revlon, Inc., New York, protested the proposed issuance of the lipstick color ban order on the basis of the evidence presented at hearings last February.

They filed their protests with FDA just as the deadline for protesting was reached on July 11, and one day before the President signed the color bill into law.

In requesting FDA to withhold issuance of the ban order, the industry committee's statement argued that the D&C colors involved in the delisting proceeding, being still listed for drug and cosmetic uses, will be deemed to be provisionally listed for such uses under the transition provisions of the new color law.

While this would make the tentative or-

—Continued on page 48

Styrene Sweepstakes: Suntide Is New Entry

Suntide Refining Company will be making styrene monomer by 1962. The wholly-owned subsidiary of Sunray Mid-Continent Oil Company plans a 60-million-pound-a-year plant at its Corpus Christi, Tex., refinery.

The styrene unit, which can be expanded to 75 million pounds per annum when necessary, is expected to be on stream in the spring of 1962. Production will be for captive purposes, as yet undisclosed by Suntide. Trade conjecture: polystyrene, most likely.

*OPD Looks at Styrene**

	1960	1962
Cosden	20	60
Dow	600	800
Foster-Grant	105	150
Koppers	200	200
Monsanto	400	560
Odessa Styrene	50	50
Shell	135	135
Sinclair-Koppers	....	70
Suntide	....	60
Union Carbide	110	110
Total	1,620	2,195

* Millions of pounds.

The styrene unit is the third capital expenditure in the petrochemical field announced by Sunray Mid-Continent in recent months. Other significant moves:

- Suntide is building a "Hydeal" toluene hydrodealkylation unit at Corpus Christi. Ostensibly, benzene will be produced. However, the unit can also be used to make petroleum naphthalene.
- A benzene extraction plant is being built at Sunray's DX Sunray plant in Tulsa, Okla. The whole program is expected to cost $10 million over a two-year period.

Ethylene, which Suntide formerly

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Vanilla Trade Stalls On Setup of Standard

Food & Drug Administration's standards for ice cream may be held up again. Reason: The vanilla flavoring producers can't make up their minds on a set of standards for their products.

The whole thing is already up in the air over another tough issue: whether ice cream containing vanillin must be labeled "artificially flavored."

The dispute over the vanilla standards came to light over the weekend when the FDA invited interested persons to file comments in thirty days on two proposed standards for vanilla products offered by the industry. One is a proposal by McCormick & Co., Baltimore, Md., and the other comes from a group of seven flavoring manufacturers.

The chief difference between the two

—Continued on page 52

Allied Discloses Plan For Polyether Facility

Allied Chemical Corporation is announcing plans today (July 18) to build a plant for production of polyethers. This will make the New York-based company a source for all the major urethane foam components.

The plant will be constructed at Baton Rouge, La., by the Solvay Process Division, which already operates facilities in that city for soda ash, chlorine and caustic soda.

Initial production is slated for January, 1961. Marketing will be handled by Allied's National Aniline Division. Production capacity of 20 million pounds annually is expected to be augmented later through built-in facilities for expansion.

American Alkyd Starts Up Resins Plant in California

American Alykd Industries has started up production of synthetic resins at its newly-constructed plant in Richmond, Calif. The facility is rated to produce 26 million pounds of resins a year.

The company's original plant, located in Carlstadt, N.J., was also expanded recently. American Alkyd is a major producer of alkyd, polyesters, phenolics, hard maleics, polyvinyl acetate and acrylic emulsions.

Stauffer Soda Ash Works Slated to Rise in Wyoming

Stauffer Chemical Company has inked in the final details on a plan to build a major soda ash facility at Green River, Wyo. Initial capacity: 150,000 to 200,000 tons a year. Construction will begin at once and is slated for completion by late 1962.

Production will be based on an extensive high-grade trona deposit which has been charted by a two-year test drilling program. The project involves driving a mine shaft and an air shaft, building a railroad bridge to span three rivers, a railroad spur, highway and a refinery.

The trona mine contains some shale and carbonation material. Stauffer says it has developed a process to refine trona to yield top quality soda ash. Output will be marketed nationally.

The New York concern currently produces soda ash at Searles Lake, Calif. The new Green River installation will about double Stauffer's ash capacity.

Monsanto Completes Work On Sodium Bisulfate Unit

Monsanto Chemical Company has placed expanded facilities on stream at its globular sodium bisulfate (nitre cake) plant in Everett, Mass.

The expansion, increasing production 20 percent, is aimed at supplying future markets for the material, the company says.

Drug Men's O'seas Hope: Expand, Don't Export

How can drug manufacturers, currently exporting less than 1 percent of their total output, carve out a bigger share of the overseas market?

Faced with exorbitant tariffs in some cases and perennially higher production costs, drug men see less and less hope of coming up with a satisfactory answer via the export route.

This was made clear last week in discussions between industry spokesman and officials of the Commerce department in Washington.

Expansion of foreign-based operations is the key to expanding overseas operations, drug officials said. But licensing restrictions and Italy's drug patent policy are only a few of the problems that must be solved before this route can take the industry to where it wants to go, they added.

The Italian law bars patents on drug products, one spokesman noted, thus disarming US manufacturers of a competitive advantage won through their own research.

Apparently the industry's policy of locating overseas has come in for criticism in some financial circles for allegedly abetting the flight of gold out of the US. But this charge was easily met by the drug makers. They argued that the early loss of gold in re-location abroad is more than made up for later through repatriation of earnings.

Here are some areas in which the government could act to help overseas operations, the drug makers add:

- Expanding available capital through such government loan programs as the Development Loan Fund.
- Surveying the newly-developing countries of the world to determine potential demand for drugs and pharmaceuticals.
- Encouraging other governments to ease prohibitive licensing restrictions.

It was noted that profitable foreign-

—Continued on page 39

HEW Prize to Williams If Sen. Kennedy Wins?

Chemical and drug men are pondering this worrisome question in the wake of last week's political convention: Will G. Mennen ("Soapy") Williams, a strong proponent of the welfare state, become the new Secretary of Health, Education & Welfare if the Democrats win in November?

That, say the analysts, may be the payoff for the Michigan Governor's key role in Sen. John F. Kennedy's first-ballot blitz in Los Angeles.

It is no secret that Mr. Williams wants a Cabinet post for his efforts in behalf of the Kennedy candidacy, preferably HEW or Labor. Whether the Presidential nominee has promised him a post remains shrouded in mystery, but, the political seers contend, the Williams appointment is a real possibility.

Vitamin Manufacturers Relax As FDA Acts on Folic Acid

Makers of vitamin preparations, worried stiff for the past few months that Food & Drug Administration was about to deal their lush business (estimated sales: up to $200 million a year) a deadly blow, are breathing more easily now that the federal agency has cleared the air—for the time being, at least—on folic acid. Unofficial reports on the impending action have run the gamut from an outright ban on products containing folic acid to a blanket okay. Last week the agency made it clear that it means to take a middle course: It will grant an eight-month extension for the use of folic acid in vitamins unless the daily dosage is more than 0.4 milligram.

The proposed order would permit continued over-the-counter sales on all preparations containing less than the established maximum level. Products containing more than 0.4 milligram of folic acid a day will require prescriptions. Manufacturers and others concerned have fifteen days in which to file written comments on the proposal.

Interferes With Anemia Diagnosis

Although folic acid is not itself harmful, FDA explains, it has been known to mask the symptoms of pernicious anemia when added in sufficient quantities to the diets of persons with this disease, thus interfering with proper diagnosis.

The agency's action was taken after consultation with experts in the fields of hematology, general medicine, preventive medicine, pediatrics, nutrition, obstetrics and gynocology, and after study of the recommendations of a committee of medical experts appointed by the Commissioner of Food and Drugs from a panel selected by the National Academy of Sciences-National Research Council.

With respect to vitamin preparations containing more than 0.4 milligram of folic acid, the proposed regulation provides that:

- At the point of manufacture or labeling, the change to prescription labeling be accomplished before further shipment of such products.
- That the orderly re-labeling of stocks of such products already in the channels

—Continued on page 63

Phosphate Products Due To Get a Bigger Home

Tennessee Corporation's US Phosphoric Products Division plans a facilities enlargement in Tampa, Fla., that will make possible a 50 percent rise in output of phosphate products.

Expansion activities are expected to be completed late this year or early next year. The program provides for increased production of triple superphosphate, phosphatic fertilizer solution and the company's trade-named "Di-Mon."

Fumaric Acid Set For New SD Route

Scientific Design Company — no stranger to dibasic acids—has just come up with a new method for making fumaric. The process is characterized as a new and simple one and reportedly can recover fumaric values from almost any maleic-containing feedstock.

The process can also be used for straight fumaric acid production from prime feedstocks, reports its New York-based designer. The method employs a special catalyst and is based on moderate isomerization conditions.

There are a number of important maleic-containing feedstocks that can be upgraded: maleic scrubber solution, phthalic scrubber solution and maleic refiner bottoms. Prime feedstocks include benzene and butenes, says the design company.

SD's new process is considered of major importance to maleic or phthalic anhy-

—Continued on page 39

Flavor, Perfume Goods Show a Big Output Rise

Output of flavor and perfume materials rose to 47 million pounds last year, up 9 percent from 43 million pounds in '58, the Tariff Commission reports. Sales scored a comparable advance—to 43 million pounds, valued at $54 million, from 40 million pounds valued at $52 million.

Production of cyclic flavor and perfume materials in 1959 amounted to 27 million pounds—8 percent more than the 25 mil-

—Continued on page 58

Dow Ready to Build A Facility for Phenols

Dow Chemical Company will start construction immediately on a facility to produce pentachlorophenol and dichlorophenol. Site development is already under way at the company's Fort Saskatchewan, Alta., location, and a contract for construction has been awarded to Brown & Root.

Dow hopes to have the plant in operation by early 1961. Other units for glycols and amines are now in the engineering stage, the Midland, Mich., firm reports.

Colgate Has New Boss

Edward H. Little, chairman of the board of Colgate-Palmolive Company, New York, has retired from the post of chief executive officer. He is succeeded by George H. Lesch, who was elected president of the company last April.

The Week's Price Changes

Cedarwood Oil, Lard, Lead Oxide, Litharge, Tallow Advanced. Acrylic Acid, Corn Oil, Linseed Meal, Soybean Oil Reduced.

Prices Advanced

Carnauba wax, chalky, 1c. to 2c. per lb. (p. 65).
No. 3 Ceara, crude, 2c. per lb. (p. 65).
Parnahyba, crude, 2c. per lb. (p. 65).
Cedarwood oil, 2c. per lb. (p. 61).
Chenopodium, 10c. per lb. (p. 61).
Grapefruit oil, 25c. per lb. (p. 61).
Greases, ½c. per lb. (p. 65).
Lard, cash, 2.5c. per lb. (p. 65).
Lead oxides, ½c. to 1c. per lb. (p. 68).
Litharge, ½c. per lb. (p. 68).
Mineral orange, ½c. per lb. (p. 68).
Peanut oil, crude, ¼c. per lb. (p. 65).
Refd., ¼c. per lb. (p. 65).
Tallow, inedible, ½c. per lb. (p. 65).

Prices Reduced

Acrylic acid, glacial, c.l., 14½c. per lb. (p. 45).
Candelilla wax, crude, 4c. per lb. (p. 65).
Refd., 4c. per lb. (p. 65).
Corn oil, crude, ¼c. per lb. (p. 65).
Refd., ¼c. per lb. (p. 65).
Cottonseed oil, crude, ¼c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).
Linseed meal, expeller, 50c. per ton (p. 65).
Linseed oil, acid, ½c. per lb. (p. 65).
Linseed oil, ½c. per lb. (p. 65).
Soybean meal, $1 per ton (p. 65).
Soybean oil, crude, ¼c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

July 15, 1960	July 8, 1960	July 25, 1959
109.37	109.97	110.80

Polio Vaccine: Costlier, Better

Merck Sharpe & Dohme has a new polio vaccine which runs four times higher in price than the usual Salk vaccine—but because of the product's extra "built-in" advantages the Rahway, N. J., producer is banking on selling it without trouble. Called "Purivax," the material is of the killed-virus type and is given by injection. It is reputed to be of uniform high potency and is said to immunize faster than the Salk type. The first lot—120,000 doses—has just been released by Public Health Service.

Initially, "Purivax" will be priced to physicians at $1.90 per dose, as against the 50-cent price for the vaccine currently in use.

These Are the Advantages

Compensating for the higher price, says the Merck & Co. division, are these advantages:

- "Purivax" is of uniform high potency, in contrast to the present vaccine, which varies markedly in potency from lot to lot.
- The initial two of the recommended three 0.5 cc. doses of "Purivax" protect more than 90 percent of the recipients when given one month apart, with the 90 percent immunity rate achieved in sixty days. This compares with the approximately 60 percent protection rate among individuals receiving two 1.0 cc. doses of polio vaccine now in general use.
- "Purivax" is more suitable for vaccinating infants and young children be-

—Continued on page 43

NEW CHIEF: Wallace Macgregor, appointed president of Climax Molybdenum Company and elected vice-president of the parent organization, American Metal Climax, Inc., New York. He will succeed Frank Coolbaugh at Climax Molybdenum on August 1, effective date of the appointment.

Pennsalt Plant Overhaul Completed at Wyandotte

Pennsalt Chemicals Corporation has completed a moderinization program at its largest chlorine-caustic plant, located in Wyandotte, Mich. The project included replacement of some 5,000 old diaphragm-type electrolytic cells with 200 large, modern 30,000-ampere cells.

Installation of the cells was preceded by replacement of caustic evaporating and brine treatment facilities. Total cost of the program: $6 million.

Output, the Philadelphia-based company reports, has been increased by the project, but figures are not given.

Sulfuric Acid Project Set

A 376-ton-a-day sulfuric acid plant will be built in northern Greece for an agency of the Greek government. Construction contract has been awarded to Chemical Construction, Ltd., of England, a subsidiary of Chemical Construction Corporation, New York. The plant—a sulfur burning unit—will be located in Ptolemais.

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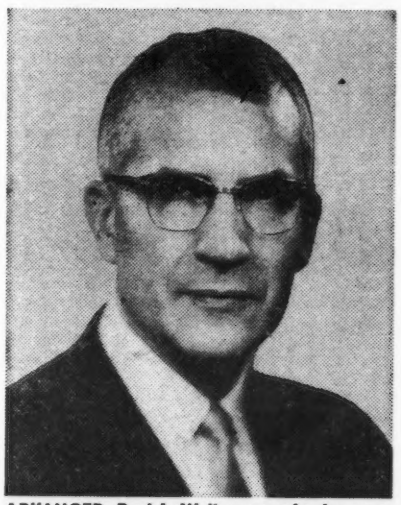
METHANOL END-USE PATTERN

Chemicals Loom Large in 1960

Chemicals		Solvents	
	(Millions of Gallons)		
Formaldehyde	112	Duplicating Fluids	3
Inhibitor	9	Paint Remover	3
Methacrylates	12	Other Solvents	12
Methylamines	9	Miscellaneous:	
DMT	6	ADI Fluid	21
Methyl Halides	5	Exports	18
Methyl Ethers	2	Antifreeze	10
Other Chemical	40	Other	20
Total			282

Hoechst, German Drug Giant, Enters American Manufacturing-Sales Field

A big name in the German drug industry has moved in to make a name for itself in the American drug trade. Company in the spotlight is Farbwerke Hoechst AG, which today (July 18) is announcing the purchase of one of the oldest and most highly respected drug houses on the American scene: Lloyd Brothers, Inc., Cincinnati, Ohio. The transaction—regarded as something of an historical one in the pharmaceutical world—has just been carried out by the German organization's American subsidiary, Intercontinental Chemical Corporation.



ADVANCED: Paul L. Weller, named sales manager for industrial chemicals in Spencer Chemical Company's industrial chemicals division. He succeeds George Olson, who has resigned from the Kansas City, Mo., firm.

The acquisition means that Hoechst is definitely entering the American manufacturing-sales field on its own for the first time. Just how far it plans to go has not been made known.

Another American Arrangement

(At present the German giant does have an arrangement with another US manufacturer, but that is merely a licensing pact for the Hoechst oral anti-diabetic agent, "Orinase." The product is sold here by Upjohn Company, Kalamazoo, Mich., but Hoechst vows that its contract arrangements with the Michigan firm won't be altered by the acquisition of Lloyd.)

The Cincinnati organization, at the turn of the century, was one of the most prominent drug houses in the US. Veteran chemical executives remember that its products were a by-word in practically every physician's office in the country.

—Continued on page 58

Syntex Increases Stake In Ethical Pharmaceuticals

Following through on plans to extend its ethical pharmaceutical activities, Syntex Corporation has organized Syntex Laboratories, Inc., to produce and market new steroid specialty products under its own name in the US.

Prior to this, specialty products of Syntex were available under the company's label only in Mexico and Latin America. Distribution in the US and other countries was handled by other pharmaceutical firms.

Edmund R. Beckwith, jr., has joined the Syntex organization as president of the new subsidiary. He was also elected a director of the parent corporation.

A cooperative venture recently entered into with Eli Lilly & Co. will not be affected by the formation of Syntex Laboratories, a spokesman for Syntex discloses.

Gen'l Chemical Taking 'Savvy' to the Mexicans

General Chemical Division of Allied Chemical Corporation is going to take its technical know-how down to Monterrey, Mexico, to help Celulosa y Derivados, SA, get started on chemical installations to produce hydrofluoric acid, carbon tetrachloride and fluorinated hydrocarbons.

New York-headquartered General Chemical is one of the primary US producers of hydrofluoric acid and fluorinated hy-

—Continued on page 43

Methanol US Capacity Rising, But So Is Overseas Potential As Foreign Expansions Mount

Briskness in methanol business during the first half has caused virtually every producer to scrutinize plant capacities. Strong demand and occasional tight supply have exerted profound influence on thinking of major consumers of methanol as well. It's generally felt by the industry that increases in plant size of at least moderate proportions are in store. But there's one big bugaboo on the horizon: Overseas capacities (outside the Soviet Union and Red China) are expected to rise to 400 million gallons per year in 1962, up more than 25 percent from known levels today.

OPD 'Depth' Report

World markets absorbed 17.5 million gallons of US methanol in 1959, and could top that figure this year. But what's going to happen when that extra 100 million gallons of capacity comes in overseas?

Approaching Indigestion?

There are already some rumblings in world methanol markets. Despite sharply increased production and demand for methanol in West Germany, stiff competition forced price declines in 1959.

Although nobody knows what the methanol capacity of the USSR amounts to, two facts are known. One, Russia occasionally exports to western countries, including Austria; and two, the Soviets have at least 3 million gallons storage capacity at Riga, Latvia.

Seven-year plans in eastern Europe are adding beef to methanol capacities there. East Germany, which produced 24 million gallons in 1959, will make 30 million gallons in 1962, and 51 million gallons in 1965.

Poland's capacity is reported at 6 million gallons per year now, and is set to rise to 7 million gallons by 1962. Czechoslovakia plans to double its methanol capacity by 1965.

Western Europe isn't idle by any means in this expansion race. West Germany, Europe's largest producer, increased methanol output from 192,000 tons in 1956 to 296,400 tons in 1959. Further, Rheinische Braunkohlenstoffwerke is tacking on another 50,000 tons at its Wesseling location.

United Kingdom shows the most dramatic advance in capacity. Now rated at 26 million gallons per annum, potential is expected to jump to 63 million gallons per year when two new installations are completed.

France, whose methanol output in 1959 was 46,400 metric tons, should be able to produce 105,000 metric tons in 1962, after construction of a big new plant at Lacq.

Italy is expected to expand its methanol production, at least moderately, in order to handle a 100,000-ton-a-year boost in formaldehyde capacity over the next two years.

It's also anticipated that Japanese methanol capacity will climb, based chiefly on history. Japan has been for the most part self-sufficient in methanol the past few years (a mere fifty-four gallons were bought from the US last year).

Production capacity in Japan has risen from an estimated 110,000 metric tons per

—Continued on page 44

Linde Is Expanding

Linde Company, a division of Union Carbide Corporation, is expanding its oxygen producing facilities with installation of a new on-site plant at Pueblo, Colo. The unit will supply more than 200 million cubic feet of oxygen a month to Colorado Fuel & Iron Corp.

METHANOL OUTPUT

1965	*350 million gals.
1960	*282 million gals.
1959	265 million gals.
1958	232 million gals.
1957	214 million gals.
1956	240 million gals.
1955	202 million gals.
1954	169 million gals.

*Industry Estimate

Source: Tariff Commission

Hazardous Label Law To 'Sleep' Six Months

Chemical makers and others hit by the new hazardous articles law have a six-months period of grace before they will have to comply with its strict requirements.

The bill, signed last week by President Eisenhower, became law July 12 and will be effective six months later. In addition, authority has been granted to delay the effective date up to eighteen months in cases of particular hardship.

The bill got in under the wire just before the recess for the political conventions. Affected are all chemical and other products offered for general household use.

Administration of the new law is vested in the Department of Health, Education & Welfare and will be delegated to the Food & Drug Administration by Secretary Arthur S. Flemming.

It applies to all products of a "hazardous" nature that are packaged for household use, except economic poisons, foods, drugs and cosmetics—which are covered by other laws—fuels for house heating or refrigeration, and radioactive materials.

The articles must be labeled as to the degrees of danger: the signal word

—Continued on page 38

PROMOTED: Henry S. Winnicki, named vice-president of the chemical divisions of Food Machinery & Chemical Corporation, New York. He had been manager of the chemicals and plastics divisio

Drug Men Answering Kefauver—at Their Leisure

As congressional probers turn to matters of immediate political concern, the drug industry is taking the opportunity to bring its case before the public in a more detailed and leisurely way than was ever possible under the glare of the Kleig lights during the Kefauver hearings.

In respect to "Prednisone," the public is now learning that Schering Corporation had to invest some $3 million just to lay in an adequate inventory of cortisone—starting material for the Bloomfield, N. J., company's super-cortisone.

Another $100,000 was spent to load a big tank with the cortisone, plus microbes and proper foods for them. Microbes, Schering explains, serve the purpose of altering cortisone molecules for the better by eating away two hydrogen atoms.

"If the microbes were left alone too long, they could chew the drug molecules into worthlessness," Schering notes. On the other hand, if the mixture didn't "cook" long enough, very little prednisone would be produced.

The prednisone story is recounted in "Breakthrough—Reward of Research," a booklet authored by Donald G. Cooley and published by Schering. And many of the facts it contains were probably never known to the Kefauver probers, it becomes abundantly clear to those who followed the hearings.

Under the watchful eyes of Schering scientists, the $3.1 million outlay went from one fermentation pot to another, and the required alteration was effected without harm from the microbes.

Meanwhile, some $1.5 million went into a crash program of advertising. This included doubling the company's marketing staff from 180 to 350 men.

It was a gamble, and one that paid off —both in benefit to mankind and company

—Continued on page 63

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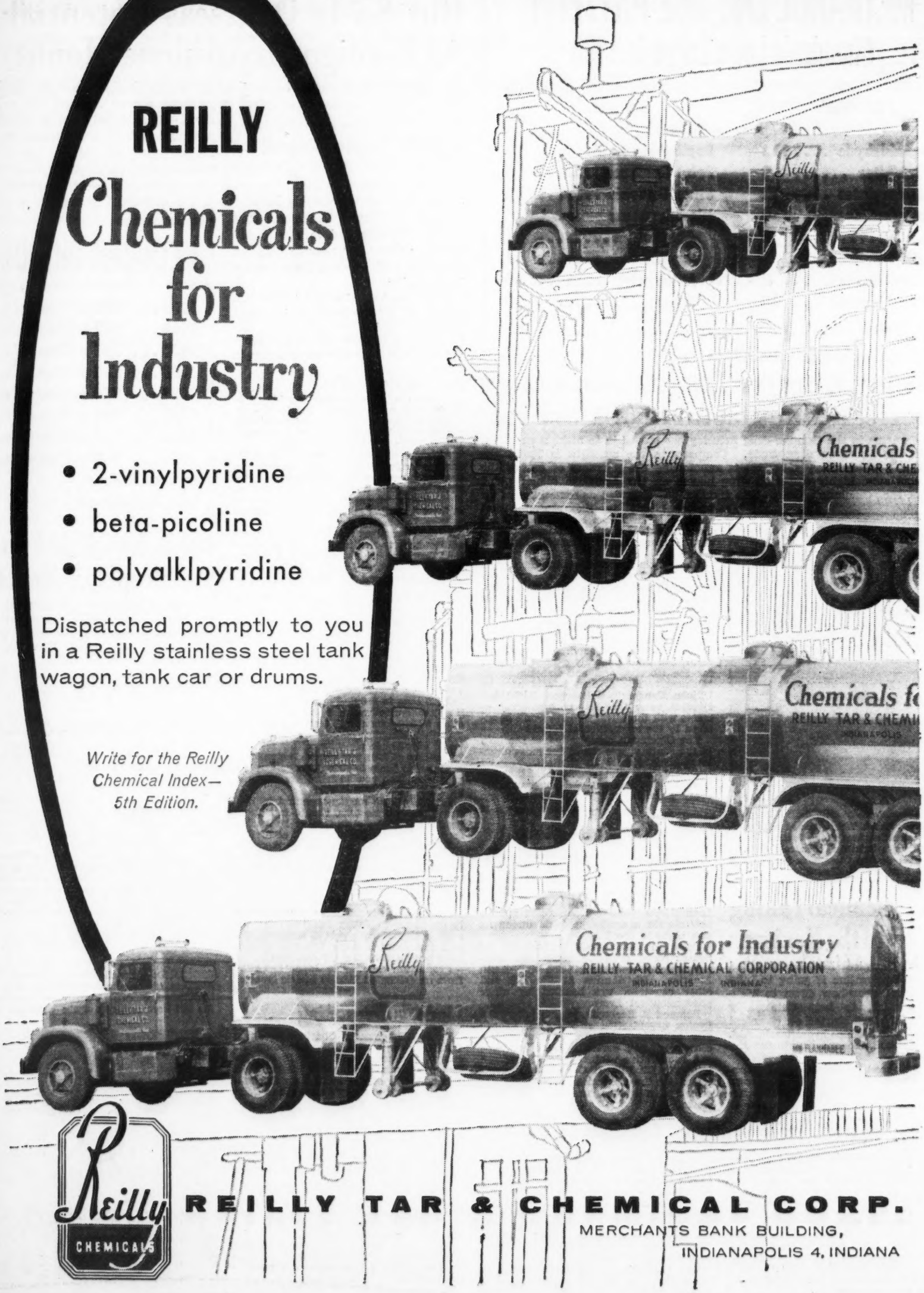

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IN SELLING JOB: William S. Rhoads, appointed sales manager of the newly-formed industrial chemicals division of Stepan Chemical Company, Chicago.

Petrochem Converts Increasing These Days

Everyone is converting nowadays—especially, they're turning more and more petrochemicals into intermediates. And as plastic, fiber, synthetic rubber and other end-use markets expand, the groundswell in petroleum derivatives increases.

Such is the impression the trade is gleaning this week from 1959 production figures being sent out by the Tariff Commission.

While the rest of the US economy grew at a groping 3 percent last year, production of crude products from petroleum and natural gas expanded a brow-mopping 16 percent. The production total was 24.3 billion pounds, as against 1958's 20.9 billion.

And calling the brisk production tune was an active marketplace: Sales rose to 16.6 million pounds, valued at $583 million. A year earlier they were only 11.9 million pounds, worth a bare $380 million.

Breaking down the production figure, the tariff people report output of all aromatic and naphthenic products at 6.75 billion pounds, up 28 percent from 1958. Sales were 4.9 billion pounds, valued $133 million, as against the previous year's 3.4 billion pounds, valued at $98 million.

Benzene output from petroleum totaled

—*Continued on page 38*

Revlon Acquires Control Of French Perfume House

Revlon, Inc., has acquired through an affiliated company in France Les Parfumes Pierre Balmain SA, Paris. Financial details of the transaction have not been disclosed.

The acquisition gives Revlon world-wide rights to manufacture and distribute perfume and allied cosmetic products under the Balmain name. Balmain's other retailing lines are not involved.

OPD Reports From Europe

Common Market and EFTA Are Just Economic Sluggers In the Eyes of Chemical Men

The big fight between the Common Market and the European Free Trade Association is one thing to a chemical man and another thing to a statesman. A chemical leader sees it as a hard fight to hold markets; a statesman looks upon it as a continuation of the negotiations to construct a bridge between the six-nation Common Market and the seven-member EFTA. And over it all stands one memorable date: July 1. For that was the day on which EFTA made its first 20 percent cut on duties between its members, and the Common Market put through its second 10 percent reduction.

Now, as an immediate result, exporting countries in one bloc are facing up to the problem of maintaining their traditional markets in the other trade group.

Germany (a member of the Common Market) and Britain (sponsor of the EFTA) are the central countries in the intensified struggle. In 1959, out of total exports of $9.8 billion, Germany shipped $2.7 billion to its fellow Common Market members and $2.6 billion, or 27 percent of the total, to EFTA nations. Britain exported $1 billion of goods to its EFTA cohorts and $1.4 billion to the Common Market Six, with total UK exports reaching $9.3 billion.

No One Waiting for Diplomats

Obviously, the companies depending on these sizable markets for large export orders aren't simply waiting for the diplomats to solve their problems for them. Sweden is the key market in the EFTA and the Netherlands in the Common Market.

Germany has been the largest supplier of Sweden's imported goods for some years, followed by the UK at a distance. Sweden is a large market for consumer durables, electrical equipment, chemicals, plastics and petroleum products. In 1959, German exports to Sweden amounted to $540 million and UK exports were $330 million, of which $26.5 million were chemicals.

Many German companies interested in preserving their dominant position in the Swedish market are widely reported by British firms to have adopted the simple tactic of cutting their prices to compen-

—*Continued on page 43*

Montecatini Set to Acquire Vetrocoke, Boost Capital

Montecatini soc. gen., Milan, Italy, is getting ready to absorb Vetrocoke S.p.A., an Italian manufacturer of nitrogen fertilizer, glass and coke products, located near Venice.

Montecatini's board of directors announced today (July 18) that an extraordinary stockholders' meeting will be held July 28 for approval of the merger.

At the same meeting, the board will propose a whopping 50 percent increase in the company's capital stock, from its present 100 billion lire ($161,290,000) to 150 billion lire par value ($241,935,000).

This represents an increase in authorized capital of 50 million shares, each having a par value of one thousand lire ($1.60).

ORGANIZATION HEAD: Erhart K. Drechsel, associate director of development for Texas Butadiene & Chemicals Corporation, elected president of Chemical Industry Association.

Rubber Chemicals Get Aid From Accelerators

A driving 24 percent advance in production of rubber-processing chemicals last year was powered, literally by accelerators. Total US production is tabbed in Tariff Commission's preliminary report at 210 million pounds, up from 169 million in 1958.

"Larger output of these chemicals in 1959 is attributable to increased production of cyclic and acyclic accelerators in that year," are the commission's words.

And sales rose proportionately. The

—*Continued on page 52*

Reheis Is Now Marketing Pure Extract of Thyroid

Reheis Company, Berkeley Heights, N. J., is now producing thyroglobulin for the pharmaceutical industry. Commercial quantities of this purified extract of thyroid have not been previously available.

Thyroglobulin is the physiologically active protein extracted from fresh thyroid glands.

Trace Minerals In Animal Feeds Cleared Anew

Food & Drug Administration has revised its proposal for the safety clearance of forty-two compounds serving as sources of minerals in animal feeds. The agency's action follows reconsideration of a six-month-old proposal (OPD, 1/4/60) on the basis of comments and additional data obtained from animal nutrition experts and the feed industry.

The earlier regulation was withdrawn because of an apparent misunderstanding as to the scope and purpose of the proposed order.

To establish the status of the forty-two compounds under the food additive amendment, FDA has listed the minerals and their source compounds for further consideration by qualified experts throughout the country. Included are compounds which are sources of cobalt, copper, iodine, iron manganese and zinc.

Limits for Cobalt, Copper

Specific limits are proposed only for the addition of cobalt and copper to animal feeds. The other minerals will be regarded as safe when used in accordance with good feeding practice to supply nutrient requirements, taking into account the mineral content of available feed and the environment in which the animal is grown.

The new proposal places a safe limit for added cobalt at no more than one part per million in the daily feed intake of nonruminants, such as swine and poultry; and for added copper, at no more than ten parts per million in the daily intake of sheep.

The restriction on cobalt is based on the advice of consultants that a larger amount causes a condition known as polycythemia—an increase in number of red blood cells.

The safe limit for copper rests on the observation that the normal growth of sheep on western ranges is inhibited with the addition of copper salts in excess of ten parts per million of the ration.

Interested persons may make comments on the new proposal until September 7. These comments will be considered by the Commissioner of Food and Drugs in the drafting of a final order.

Except for copper and cobalt com-

—*Continued on page 70*

Sun Forms Overseas Unit; Bittenbender Is Director

Sun Chemical Corporation has just capped its three-year expansion of foreign facilities and markets by establishing an international operations group. William P. Bittenbender, a foreign service executive for twenty years, has been named director of the new group.

Sun's current foreign expansion projects include construction of a pigment manufacturing unit in Mexico. The company is also making plans for chemical, printing ink and coating and finishing facilities in England, France, Australia, Mexico and Venezuela.

Association Meetings

American Chemical Society, national meeting, New York, September 11-16.

American Institute of Chemical Engineers, May hotel, Tulsa, Okla., September 25-28.

American Petroleum Institute, division of production, eastern district meeting, Greenbrier hotel, White Sulphur Springs, W. Va., July 28-30.

American Pharmaceutical Association, annual meeting, Shoreham hotel, Washington, D. C., August 14-20.

American Soybean Association, joint annual meeting with National Soybean Processors Association, Peabody hotel, Memphis, Tenn., August 22-23.

Armed Forces Chemical Association, annual meeting, Sheraton-Park hotel, Washington, D. C., September 15-16.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Shelburne hotel, New York, October 25.

Canadian Agricultural Chemicals Association, annual meeting, Britannia hotel, Lake of Bays, Muskoka, Ontario, September 12-14.

Canadian Manufacturers of Chemical Specialties Association, annual meeting, Queen Elizabeth hotel, Montreal, Que., Canada, October 24-26.

Chemical Institute of Canada, western regional conference, Regina, Sask., September 8-10.

Chemical Market Research Association, Wentworth - by - the - Sea, Portsmouth, N. H., September 22-23; Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Drug, Chemical & Allied Trades Association, spring luncheon meeting, Commodore hotel, New York, June 21; annual meeting, Sagamore hotel, Bolton Landing, Lake George, N. Y., September 15-18.

Electrochemical Society, Shamrock hotel, Houston, Tex., October 9-13.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Gordon Research Conferences: corrosion, Colby Junior College, New London, N. H.; radiation chemistry, New Hampton School, New Hampton, N. H.; high pressure research, Kimball Union Academy, Meriden, N. H., July 18-22.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Foreign Trade Council, national meeting, Waldorf-Astoria hotel, New York, November 14-16.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

Parenteral Drug Association, Edgewater Beach hotel, Chicago, June 24; annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Royal Society, tercentenary celebration, London, England, July 18-26.

Salesmen's Association of the American Chemical Industry, annual sales clinic, Roosevelt hotel, New York, November 14.

Society of the Plastics Industry, New England section conference, Wentworth-by-the-Sea, Portsmouth, N. H., October 13-14.

Stanford Research Institute, symposium on chemical reactions in the lower and upper atmosphere, Mark Hopkins Hotel, San Francisco, April 18-20, 1961.

Technical Association of the Pulp and Paper Industry, forest biology symposium, New Washington hotel, Seattle, Wash., August 24-27.

Toilet Goods Association, scientific section's winter meeting, Waldorf-Astoria hotel, New York November 30.

Western Packaging & Materials Handling Exposition, Pan Pacific Auditorium, Los Angeles, July 15-21.

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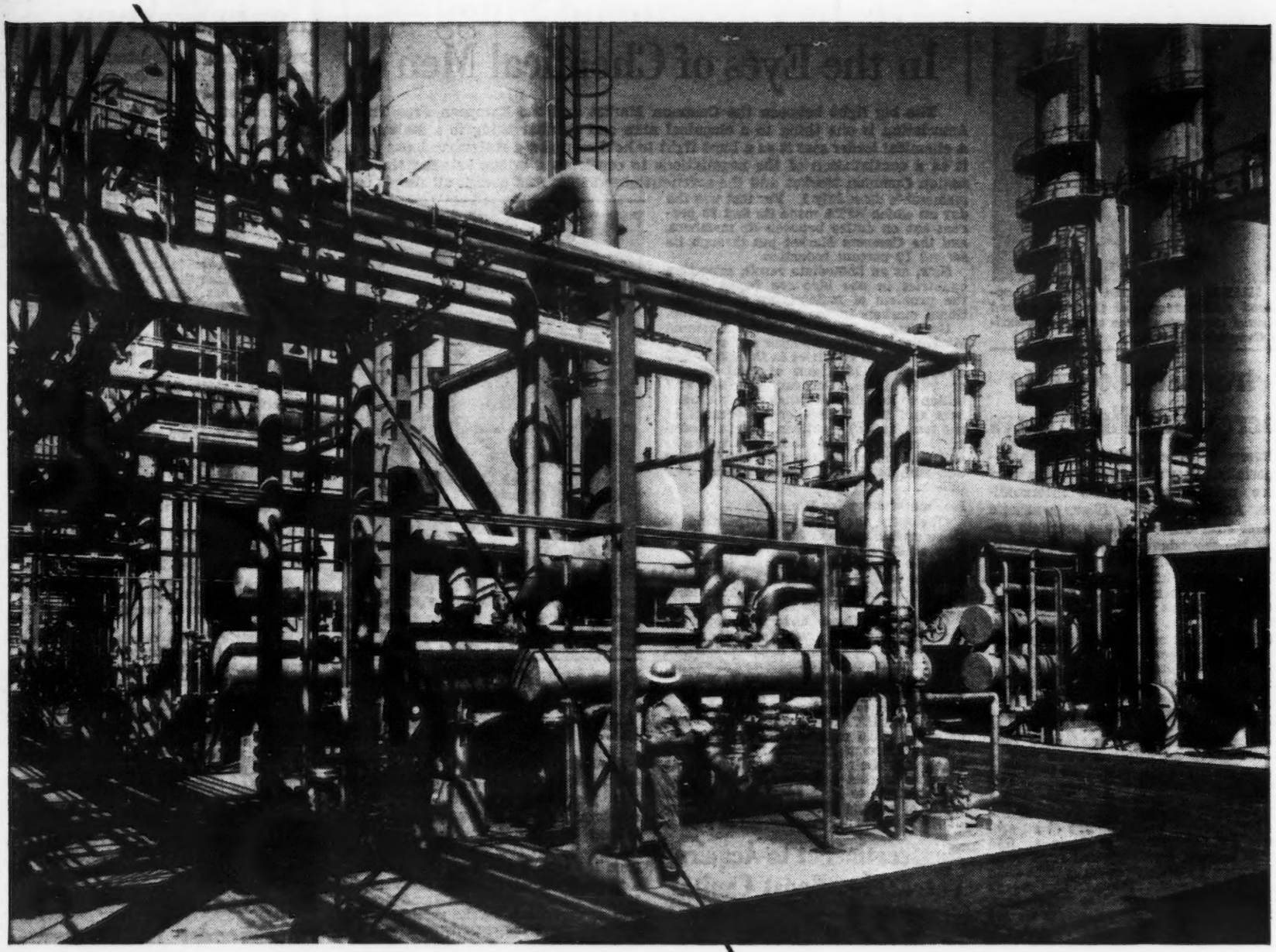

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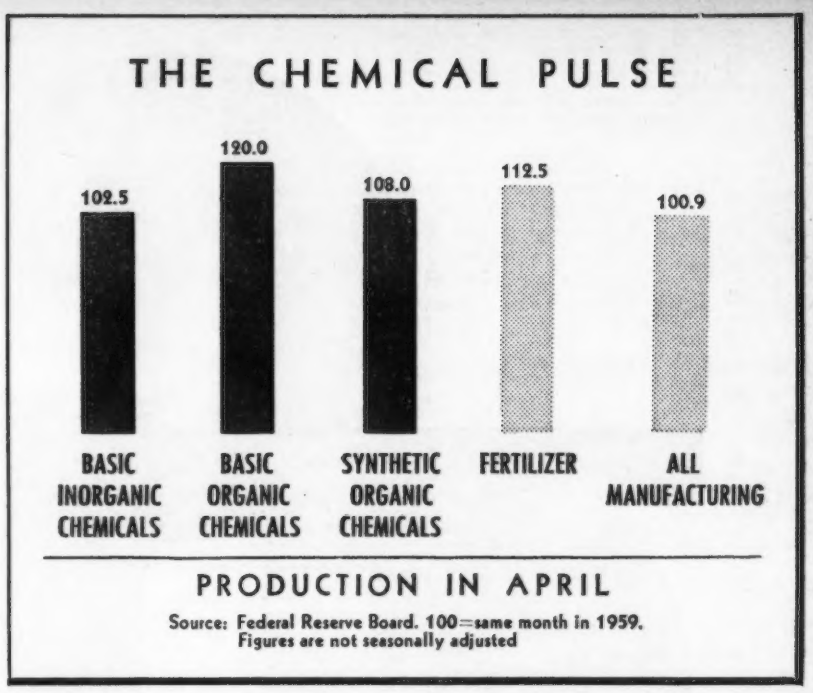

Jobs for Applied Chemistry

On the basis of statistical data for 1958 published by the National Science Foundation, trend-guessers have been quite busy recently with predictions of a surge in research, governmental and private, over the coming five years. Two areas in which there will be a steadily increasing need for research are being stressed in various comments.

One of those areas embraces the meeting of the growing needs for water by way of financially and productively practicable conversion of salt water into fresh. The other has to do with a more distant need—the replacing of the world's conventional fuels, the resources of which, it is being seriously predicted, will be completely exhausted in anything from four centuries to a millenium.

The federal government is concerning itself seriously with the water problem—and has a strong desire to avoid further area conflicts and condemnation deriving from the diverting of streams or their damming. It has a going program of conversion-plant building, and a bill has been in progress in congress that would authorize a generous additional appropriation for extension of the program and promote cooperation with states and with interested agencies and enterprises.

The cost of the processes now in use is generally regarded to be too high, and endeavors to effect reductions are getting increasing attention, at least in suggestions. A strong move in that connection is aimed at developing a practicable method of utilizing the salts separated from the water. That, obviously, is a job for applied chemistry.

There is another job in the area of fuel need, supplemental or complemental to the developments in nuclear fuels and the four methods of energy conversion which are being studied in the electrical industry. Somebody may some day find a practicable method of making use in the fuel-need area of the seasalts by-product of water conversion.

Export Counsel Chosen

In another step under the national export expansion program pronounced some weeks ago by the President, the Secretary of Commerce has appointed from non-governmental ranks ten field sales managers to "work with local business and trade groups in alerting the business community to new opportunities to sell more US goods abroad." The appointees were chosen from industrial, commercial, consultative and educational activities and assigned to field offices to cover specific areas throughout the country. They are expected to work closely with the thirty-three regional committees of businessmen set up by the secretary under the program about two months ago. A number of members of the new group have served recently on trade missions from the department.

For initial training, the group was briefed for three days by the assistant secretary for international affairs and the director of the Bureau of Foreign Commerce on departmental services and facilities for exporters. Insofar as any information is available, the export consultants have not been briefed in any respect on the situations and circumstances which underlie the criticisms that have led both national political parties to recognize the importance—the necessity—of trying to deal with this country's foreign policy and the practices thereunder. There is need for such consideration because the criticism has as much pertinence in commercial areas of foreign relations as it has in political.

Of course, foreign trade must be a fairly well-balanced two-way relationship. Also, exporting must face the strenuous world competition that is fundamental in world trade. The declaration made at the world market conference in Chicago last month, that "American export opportunities are being lost because of widespread indifference among American businessmen" covers only part of the story. The same is true in other respects of this pronouncement made there: "Failure to move into a position of greater world exports, would not only mean missing the opportunity of a lifetime, but will most certainly relegate our country to that of a second-rate world power."

The progress of government-business relations under the export expansion program presents a particular problem for the chemical industry. There is no representative of that industry among the ten newly-chosen field sales managers. Only two of the thirty-three regional committees set up two months ago are headed by representatives of members of that industry. There is much more than mere curiosity behind the reasons why the industry should be interested in finding out why its rating in the functionings of the Department of Commerce is not now what it was in the days of the late, lamented Charlie Concannon.

Health Care Exhibit

As a matter of guidance in public relations in a most important area of service, the chemical and drug industries should take serious adequate cognizance of the value of participation in the giving and getting opportunities presented at the exposition sponsored by the local health department in New York City during the current week. Federal, state and local health agencies, the armed services, medical societies and health service organizations of both profit and non-profit types are among the exhibitors. Remedial services are being shown by some drug companies. Sanitational preventive and otherwise protective services provided by means of chemicals should get the presentation that their effectiveness deserves.

Medical care policy plans are steadily becoming more and more the object of all sorts of attention. Along with drug services, they are being more and more probed with all sorts of motivations and objectives. The public should be given direct evidence of what it actually can get to meet its needs. There is a lesson in that direction to be learned widely from the plan of a hospital in New Jersey, under which patients are enabled to attend to their own personal needs to such an extent as has been reported to have saved them an average of forty dollars on their bills. Another hospital in that state has set up a plan to provide nurse service in the private medical care of patients after they have been released from the institution, thus easing the increasingly onerous overcrowding conditions. The chemical and drug industries can help usefully in all such projects.

About a fortnight ago, a management-labor group, conferring in New York, decided to function as a steering committee for a conference in November of representatives of the five hundred health and welfare funds jointly administered by management and labor in the New York metropolitan area, with an ultimate objective of forming a permanent organization devoted to the providing of the best possible medical care under the health and welfare funds of the community. The desirable beneficial possibilities in that direction deserve the serious consideration of all industrial groups. The chemical and drug groups should get in on that movement with all their clearly relevant potentialities.

Washington Talks It Over

HEW Is in for a Big Structural Change and It Isn't Going to Make One Little Bit of Difference Who Gets Nominated or Which Party Wins the Election in November.

By Ralph L. Cherry
Washington Editor

It makes little difference which one of the front running candidates is nominated to carry his party's banner, or which political party wins the national election in November. Whatever the outcome, the whole complex of the Department of Health, Education & Welfare is in for a change.

Washington circles are thoroughly convinced that the next administration—be it Republican or Democratic—is going to take a more aggressive position on the needs of the "man in the street" and things are going to be a lot tougher for industry.

It will be recalled that in the ruckus raised last fall by Secretary Flemming's handling of the contaminated cranberry situation, it wasn't the consumers who were complaining. It was industry and the farmers. Consumer organizations were with Mr. Flemming all the way.

The trend in HEW has been on the side of consumers ever since Mr. Flemming took over and it is bound to continue now, regardless of who is running the department or which political party is in power.

This is inevitable as a result of the legislation passed by congress last year, this year and by that on tap for next year: namely, the food additives law, the color additives law, the hazardous articles labeling law and the new legislation in the making for regulating the drug industry.

For some years, there has been legislation introduced in congress to upgrade consumer interests in the government, such as providing for a Department of Consumers, with Cabinet rank. The legislation has never gotten beyond the introduction stage until this year. A few weeks before the congressional recess, hearings were called on the bill in the senate.

It isn't likely that anything further will come of the bill after the recess and it is doubtful that it will get much beyond the hearing stage in the next congress. But the fact that a committee is willing to give it active consideration is indicative of the trend towards more consumer protection.

Sponsors of the bill are Sen. Estes Kefauver of Tennessee and Sen. Hubert Humphrey of Minnesota. It has the strong backing of the liberal bloc both in the senate and house.

OPD'S BOOKSHELF

No-Residue Pesticides

This National Agricultural Chemicals Association manual* lists certain pesticide chemical uses which are acceptable on a "no residue" basis. The data were carefully compiled from official Department of Agriculture lists and supplements through March 31, 1960, as released by the pesticide regulation branch of USDA.

Listed are only those applications which the branch has determined to be in compliance with the provisions of public law 518 (the Miller pesticide chemical amendment to the food, drug and cosmetic act).

* PESTICIDE CHEMICAL USES ACCEPTED ON A 'NO-RESIDUE' BASIS. 110 pages. National Agricultural Chemicals Association, Washington, D. C. Fifty cents.

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MORTON LATEX RESEARCH . . . A comprehensive continuing research program in the laboratories of Morton Chemical Company brings you the best in Latex developments. Our understanding of polish formulating problems is your assurance of the latest techniques and developments in polymer polish ingredients.

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Magnesium Oxide • Magnesium Carbonate
Bromides—Potassium, Sodium, Ammonium
Sodium Sulfate (salt cake) • Hydrochloric Acid
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Diazo Chemicals • Cuprous iodide
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MORTON CHEMICAL COMPANY

110 N. Wacker Drive, Chicago 6, Illinois
Plants: Ringwood, Illinois—Manistee, Michigan
Weeks Island, Louisiana

CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, July 15 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. .....lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde 99%, dms., c.l., works. lb. .12 - —
dms., l.c.l., works.....lb. .13½- —
tanks, works .....lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld. lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld. lb. .36½- —
USP, bbls., 225-lb. dms., any quantity. lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml., or redist., 28%, bbls. 100 lbs. 4.80 - —
56%, bbls. .....100 lbs. 8.25 - —
70%, bbls. .....100 lbs. 9.95 - —
80%, bbls. .....100 lbs.10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd. 100 lbs.22.00 -23.00
tech., dms., c.l., dlvd....100 lbs.13.75 - —
dms., l.c.l., dlvd.....100 lbs.15.25 - —
tanks, dlvd. .....100 lbs.10.00 - —
USP, cbys., dlvd .....100 lbs.31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E. ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd. lb. .80 - —
fib. dms., l.c.l., dlvd..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd. lb. 1.35 - —
fib. dms., l.c.l., dlvd..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd. lb. .82 - —
fib. dms., l.c.l, dlvd.....lb. .83 - —
Acetone, CP, dms., c.l., dlvd...lb. .10½- —
dms., l.c.l., dlvd.....lb. .12 - —
tanks, dlvd. .....lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd..lb. .35 - —
dms., l.c.l., dlvd .....lb. .36½- .37
tanks, dlvd. .....lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.22 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.24 - —
Acetophenone, cns., dms.....lb. .42 - 1.30
Tech., dms., c.l., works.....lb. .47 - —
dms., l.c.l., works .....lb. .47¾- —
tanks, works .....lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted. lb. 1.24 - —
dms., 5,000-lb. lots, same basis. lb. 1.30 - 1.45
dms., smaller lots, same basis. lb. 1.35 - 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra. lb. .19 - —
cs., l.c.l., ex whse..... lb. .24½- .30
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver. lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. .....lb. .50 - .55
Acrolein, tech., dms., c.l., works.lb. .51 - —
dms., l.c.l. works.....lb. .51¾- —
tanks, works .....lb. .46 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis.....lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd. lb. .42½- —
dms., l.c.l., l.t.l., dlvd.....lb. .43½- —
tanks, dlvd. .....lb. .40 - —
tech., esterification, dms., t.l., f.o.b. shipping point. lb. .41½- —
tanks, same basis .....lb. .39 - —
tech., polymerization, dms., t.l., f.o.b. shipping point. lb. .42½- —
tanks, same basis .....lb. .40 - —
Acrylonitrile, dms., c.l., t.l., frt. equald. lb. .26 - —
dms., l.c.l., l.t.l., frt. alld.....lb. .27 - —
tanks, frt. equald.....lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd.....lb. .32¼- —
bgs., l.c.l., dlvd.....lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.40 - 2.60
powd., 30 mesh., fib., dms. lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works. lb. 5.25 - —
dms., 1-99 lbs., same basis....lb.10.00 - —
Aldol, 95%, dms., l.c.l., works. lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd. lb. .99 - —
fib. dms., l.c.l., dlvd.....lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs.....lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies. lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld. lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., l.c.l., dlvd..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd....lb. .17½- —
dms., l.c.l., dlvd..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms.....lb. .70 - 1.30

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular.
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
		i.b.p.	initial boiling point	ret.	returnable
b.r.	boiling range	imp.	imported	SD	specially denatured
bxs.	boxes	incl.	included	s.d.	single distilled
C.	centigrade	indust.	industrial	S E.	southeast
cbys.	carboys	kgs.	kegs	sec.	secondary
CD	completely denatured	l-	laevo	secs.	seconds
		lacq.	lacquer	s.g.	specific gravity
c.i.f.	cost, insurance, freight	lb.	pound	shipt.	shipment
		l.c.l.	less carlots	soln.	solution
cks.	casks	l.t.l.	less truckload	s.u.	standard unit
c.l.	carlots	liq.	liquid	syn.	synthetic
cns.	cans	mfrs.	manufacturers	tanks.	railroad tankcars
coml.	commercial	m-	meta	tech.	technical
conc.	concentrated	m.a.p.	mixed aniline point	tert-	tertiary
CP	chemically pure			t.l.	truckloads
cps.	centipoises	min.	minimum	t.w.	tankwagons
cryst.	crystalline	m.p.	melting point	USP	U. S. Pharmacopoeia
cs.	cases	N-	nitrogen		
ctns.	cartons	n-	normal	vis.	viscosity
cyls.	cylinders	nat.	natural	VM&P	varnish makers & painters
d-	dextro	neut.	neutral		
dbl.	double	NF	National Formulary	W.	west
denat.	denatured	NNR	New and Nonofficial Remedies	whse.	warehouse
dest-dist.	destructively—distilled			w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs.....lb. .30 - .32
powd., cs. .....lb. .60 - .62
Curacao, kgs. .....lb. .60 - .70
powd., kgs. .....lb. .90 - —
Aloin, USP, bbls., dms., kgs....lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works. 100 lbs. 4.30 - —
Lump, dms., works.....100 lbs. 5.05 - —
Powd., dms., works.....100 lbs. 5.20 - —
USP, burnt., dms..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works.....100 lbs. 5.30 - —
Powd., dms., works.....100 lbs. 5.45 - —
USP, burnt., dms..... lb. .20 - .21
USP, hydrous, dms..... lb. .07¾- .08
Alum, potash-chrome, dms.....lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works .....lb. .05½- .05¾
Aluminum acetate, basic soln., 24%, bbls., l.c.l, works. lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald. lb. .16 - —
dms., l.c.l., works..... lb. .16½- —
cryst., dms., c.l., works. 100 lbs.21.00 - —
dms., l.c.l., works.....100 lbs.21.50 - —
Soln., 32° cbys., c.l., works....lb. .0495- —
cbys., l.c.l., works..... lb. .0570- .1095
tanks, works .....100 lbs. 3.95 - —
NF, gran., dms., works.....lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works. lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80%.....lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald. lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis. lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis. lb. .049 - —
bulk, c.l., same basis.....lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works. lb. .82½- —
fib. dms., contract, works. lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works. lb. .22 - —
9-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms., contract, works. lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld. lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms. lb. .71 - —
Standard grade, dms..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms. lb. 1.13 - —
Standard grade, dms..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. .....lb. .40 - .44
Monobasic, ctns., c.l. .....lb. .39 - —
ctns., l.c.l. .....lb. .40 - .44
Tribasic, ctns., c.l. .....lb. .39 - —
ctns., l.c.l. .....lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis.....ton.40.00 - —
lump, bgs., c.l., same basis..ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald. 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works.....lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots.....oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld. lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted. lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis. lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld. lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld. lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld. lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted. lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies. ton.88.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies. ton.90.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton.91.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald. 100 lbs. 8.25 - —
bgs., l.c.l., same basis. 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms. lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works. lb. 1.00 - —
fib dms. 1,000-lb. lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., cl., works. ton.325 - —
dms., ton lots, ex whse. 100 lbs.20.40 - —
dms., smaller lots, ex whse. 100 lbs.21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works. 100 lbs. 7.00 - —
dms., l.c.l., works.....100 lbs. 9.00 - —

Ammonium bichromate, dms., works. lb. .42 .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., dms., c.l., t.l. frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l lb. .15½- —
Ammonium chloride, white, tech., fine gran., bgs., c.l., works 100 lbs. 6.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - 8.45
USP gran., 250-lb dm lb. .17¼- —
Ammonium citrate, dibasic, 250-lb. dm. f.o.b works lb 77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b works lb. 4.26 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms., l.t.l., frt. alld lb .21½- —
tanks, frt. alld lb. .19½- —
Ammonium lignin sulfonate, bgs., c.l., works 100 lbs. 3.25 - —
bgs., l.c.l., works 100 lbs. 3.40 - 3.65
Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400 lb dms. 15.000-lbs. works. lb 1.22 - —
400-lb dms., 2,000-lb. contracts, works lb 1.23 - —
400-lb. dms., works lb. 1.24 - —
Ammonium nitrate, dom., fertilizer grade. 33.5% N. bgs., f.o.b. works ton.68.00 - —
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.48.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price ton.68.00 - —
Ammonium oxalate, tech., fine gran., 250-lb dm., f.o.b. works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.14.23 - —
bgs., smaller lots, ex whse 100 lbs.15.48 -17.48
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comL., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¾
Ammonium sulfamate, bgs. c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, standard granular, bulk. f.o.b works, base price ton.32.00 - —
Ammonium sulfate, standard, gran., purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Large granular, bulk, c.l., works ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., l.t.l., works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)
Ammonium thiocyanate, tech. cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 .26
Tech, soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, coml., 55-gal, dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic, dms lb 4.50 - 6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb 4.20 - 5.60
d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb 4.20 - 5.60
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
tech., dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Amyl acetate, syn., oxo process, dms., c.l., dlvd lb. .19 - —
dms., c.l., dlvd. lb. .20½- —
tanks, dlvd. lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
Amyl alcohol, primary, dms., c.l., frt. alld. lb. .19¾- .20¼
dms., l.c.l. frt. alld. lb. .21¼- .21¾
tanks, frt. alld. lb. .17¼- .17¾
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld. E. lb. .14½- —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .26¼- —
dms., l.c.l., works lb. .27¼- —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms. lb 1.65 - 2.05
Anethol, tech., dms. lb. .80 - .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls. lb. .85 - .90
Angelica root oil, bots. lb.120.00 -140.00
Angelica seed oil, bots. lb.120.00 -130.00
Aniline dms., c.l., frt. alld. lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms. lb. 1.75 - 3.00
Anise seed, Mexican, bgs. lb. .16 - —
Spanish, bgs. lb. .16½- —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .29 - —
cs., c.l., mines lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½- —
bgs., l.c.l., frt. alld. lb. .28 - —
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb. dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .27 - —
USP, powd., bbls. lb. .31 - .34
Areca nuts, powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
1-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
1-Arginine glutamate, dms., 10 kilo lots or more kilo.60.00 - —
1-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. 75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude 6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF, c.l. (30 tons), mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kiles. kilo. 7.35 - —
dms., less than 100-kilos kilo.7.75 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.40.00 - —
ex-whse, N. Y., N. J. ton.86.50 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.35.00 - —
select, 350°F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton40.00 - —
Manjak No. 10 crude, dms., works. lb. .07 - —
Ashphalt, petroleum, cut-back, tanks, tankwagon, refy gal. .09½- —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins oz. 5.75 - 7.50
Atropine sulfate USP, bots oz. 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. lb. .40 - —
bgs., ton lots, same basis lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50.000 units. .65 - —
less than 1,000,000,000 units. 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride, anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works. 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., l.t.l., frt. equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald. 100 lbs.11.25 - —
bgs., l.c.l., frt. equald. 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., d. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., l.t.l., frt. equald ton.285.00 - —
Barium peroxide, dms., frt. equald. lb .20 —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l, same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19½- —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs. mines ton.30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-grd., paper bgs., c.l. St. Louis ton.60.00 -60.25
paper bgs., ex whse., New York ton.84.85 - —
Battery acid, cbys., c.l., works E. 100 lbs 2.35 - —
cbys, l.c.l., works, E 100 lbs 2.65 -10.95
Bauxite, bulk, mines ton. 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns lb. 2.40 - 2.70
55-60%, cns. lb. 2.50 - 3.05
NF, West Indian, 50-55%, cns. dms lb. 2.35 - —
Bayberry wax, bgs lb. .45 - .50
Beeswax, crude, African bgs. lb. .50 - .52
Brazilian, bgs. lb. .55 - .56
Central American, bgs lb. .53 - —
Chilean, bgs. lb. .56 - —
Refd., USP, bleached white, bricks, 100-lb. ctns lb. .69 - .71
white, slabs, 100-lb. ctns lb. .68 - .70
yellow, bricks, 100-lb. ctns lb. .59 - .61
yellow, slabs, 100-lb. ctns lb. .58 - .60
Belladonna leaf, bls. lb. .24 - .26
Belladonna root, bls. lb. .28 - .35
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots, ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - 1.05
Tech., dms., c.l., t.l. lb. .47 - —
dms., l.c.l. lb. .48 - —
Benzene, pure or nitration, tanks, works:
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex. gal. .34 - .40
Johnstown, Pa. gal. .34 - —
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex gal. .34 - —
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Sparrows Point, Md. gal. .34 - —
Syracuse, N. Y. gla. .34 - —
Terre Haute, Ind gal. .34 - —
Youngstown, Ohio gal. .34 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075 —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., bbls., dms., c.l., t.l., frt., alld lb. .37 - —
bbls., dms., ton lots, same basis lb. .41 - —
bbls., dms., 1,000-lb lots, same basis lb. .43 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 - —
Benzophenone, dms. lb. 1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald.lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb .23 - —
tanktrucks, dlvd. Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd lb. .55½- .65
Benzyl benzoate, USP, 40-lb. dms lb. .64 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald lb. .22½- .25½
cbys., dms., l.c.l., same basis lb. .23½- .25½
tanktrucks, dlvd. Metropolitan area lb. .21 - —
A 1½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are 1½c. lower.
Benzyl cinnamate, cns. lb 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld. lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.85 - 2.10
Benzyl isoeugenol, cns lb 2.25 - —
Benzyl propionate, bots. lb. 1.35 - 1.45
Benzyl salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots. lb. 1.75 - 1.80
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb.56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b.g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms lb 4.60 - 4.65
Bismuth metal, bxs., ton lots lb. 2.25 - —
Bismuth nitrate, cryst., 250-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb. 4.43 - —
Bismuth subiodide, fib dms lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b works lb. 4.25 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A bgs., c.l., t.l., single shipt., 70.000-lbs. or more, frt. alld lb. .29½- —
bgs., c.l., t.l., less than 70.000 lbs., same basis lb. .30 - —
bgs., l.c.l., same basis lb. .31 - —
Blackberry root bark, ois lb. 50 .55

BLACK PIGMENTS

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.160.00 - —
bgs., l.c.l., works ton.170.00 - —
bgs., l.c.l., New York whse ton.200.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton 5.50 - —
Bloodroot, bls. lb. 90 1.00

BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb. 2.10 - —
Peruvian, dms. lb. 1.70 - —
BON acid maroons, pure, bbls lb. 1.75 - —
Resinated, bbls. lb 1.50 - —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
l.c.l., works lb. .1950- .2425
Pacific coast bone black prices 3¼c. per lb higher
Bonemeal, steamed works, E ton 80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.17 -10.67
bulk, c.l., works ton.83.00 - —
Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works. ton.50.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.32 - —
bgs., smaller lots, same basis. 100 lbs. 6.57 - 8.57
bulk, c.l., works ton.42.50 - —
pentahydrate, 99½%, bgs., c.l., works ton.64.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.05 - —
bgs., smaller lots, same basis 100 lbs. 7.30 - 9.30
bulk, c.l., works ton.58.00 - —
USP, powd., bgs., c.l., works. ton.54.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.19.62 - —
bgs., smaller lots, same basis. 100 lbs.20.87 - 22.87
cryst., 99.9%, bgs., c.l., works. ton.163.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.11.05 - —
bgs., smaller lots, same basis. 100 lbs.12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton.188.50 - —
dms., ton lots, ex whse., New York or Chicago. 100 lbs.12.30 - —
bgs., smaller lots, same basis 100 lbs.13.05 - —
gran., 99.9%, bgs., c.l., works. ton.112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.47 - —
bgs., smaller lots, same basis. ton.174.25 - —
dms., c.l., works ton.137.00 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.72 - —
dms., smaller lots, same basis 100 lbs.10.47 - —
bulk, c.l., works ton.106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 - —
bgs., smaller lots, same basis 100 lbs.10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs.11.45 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., l.t.l., works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys lb. 1.60 - 1.90

COÖPERATION

Close coöperation with clients on all stages of manufacture and marketing is a vital part of the Cyanamid Fine Chemicals Department service. Cyanamid's 50 plants and 30,000 skilled employees represent this coöperation and production capacity. Your Fine Chemicals Department representative is always ready to bring you close technical assistance of the highest calibre. If you have "problems"... in formulation, stability, or new product development... the Fine Chemicals Department representative is the man to contact.

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CYANAMID

AMERICAN CYANAMID COMPANY
FINE CHEMICALS DEPARTMENT
30 Rockefeller Plaza, New York 20, N. Y.

Bromstyrol, bots.	lb.	5.35	5.70
Brucine, cns	oz.	Nominal.	
Brucine sulfate, NF, cns.		1.45	1.75
Buchu leaves, bbls.	lb.	.70	.75

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy	lb.	.21	—
cyls., l.c.l., refy.	lb.	.22	—
tanks, dlvd.	lb.	.14½	—
Butene-1, tanks, works	lb	.0625	—
Butene-2, tanks, works	lb.	.0570	—
n-Butyl acetate, ferment, dms., c.l., frt. alld	lb.	.17	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
Syn., dms., c.l., dlvd. E	lb.	.17	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
sec-Butyl acetate, syn., dms., c.l., dlvd. E	lb.	.14¾	—
dms., l.c.l., same basis	lb.	.16¼	—
tanks, same basis	lb.	.12¼	—
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E	lb.	.42½	—
dms., l.t.l. same basis	lb.	.43½	—
tanks, same basis	lb.	.40	—

Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

n-Butyl alcohol, ferment, dms., c.l., frt. alld	lb.	.18	—
dms., l.c.l., frt. alld	lb.	.19½	—
tanks, frt. alld.	lb.	.15½	—
n-Butyl alcohol, syn., dms., c.l., dlvd	lb.	.18	—
dms., l.c.l., frt. alld	lb.	.19½	—
tanks, dlvd	lb.	.15½	—
Sec-synthetic, dms., c.l., dlvd	lb.	.15	—
dms., l.c.l., dlvd.	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E	lb.	.16	—
dms., l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.13½	—
Butyl aldehyde (see Butyraldehyde).			
Butyl chloride, dms., c.l., works	lb.	.37½	—
dms., l.c.l., works	lb.	.38¼	—
n-Butyl ether, dms., c.l., works	lb.	.35¼	—
dms., l.c.l., works	lb.	.36	—
tanks, works	lb.	.33¼	—
Butyl lactate, dms., c.l., frt. alld. E. of Rockies	lb.	.42½	—
dms., l.c.l., same basis	lb.	.43½	—
tanks, same basis	lb.	.40	—
Butyl laurate, dms., works	lb.	.37½	—
Butyl methacrylate, dms., c.l., t.l., works	lb.	.55	—
dms., l.c.l., works	lb.	.55½	—
Butyl oleate, refd., dms., l.c.l., works	lb.	.32	—
Butyl phenylacetate, dms.	lb	4.50	4.60
Butyl phthalate (see Dibutyl phthalate).			
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi	lb.	.27¼	—
dms., l.c.l., same basis	lb.	.28¼	—
Butylamine (see Mono-, Di- and Tri-butylamine).			
tert-Butylamine, dms., c.l., t.l., f.o.b. works	lb.	.47	—
dms., l.c.l., same basis	lb.	.47½	—
tc., t.l., same basis	lb.	.45	—
Butylated hydroxyanisole, food grade, dms., dlvd.	lb.	4.75	—
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).			
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).			
1,3-Butylene glycol, dms., c.l., t.l., dlvd	lb.	.20½	—
dms., l.c.l., l.t.l., f.o.b. works	lb.	.22	—
tanks, dlvd	lb.	.18	—
p-tert-Butylphenol, bgs., c.l., dlvd.,	lb.	.27½	—
bgs., l.c.l., works	lb.	.28½	—
Butyraldehyde, dms., c.l., dlvd	lb.	.22	—
dms., l.c.l., dlvd.	lb.	.23½	—
tanks, dlvd.	lb.	.19½	—
Butyric acid, 99%, dms., c.l., frt. equald	lb.	.34	—
dms., l.c.l., same basis	lb.	.34½	—
tanks, same basis	lb.	.32½	—
Butyric ether (see Ethyl butyrate).			
Butyrolactone, dms., c.l., t.l., works.	lb.	.40	—
dms., l.c.l., same basis	lb.	.43	—

C

Cacao butter (see Cocoa butter).			
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies	lb.	5.55	—
Light shade, bbls., same basis	lb.	4.65	—
medium shade, bbls., same basis.	lb.	5.30	—
Medium light shade, bbls., same basis	lb.	4.90	—
Orange-red shade, bbls., same basis	lb.	4.30	—
Yellow, all shades, bbls., frt. alld. E. of Rockies	lb.	2.85	—
Cadmium iodide, 25-lb. fib. dms	lb.	6.75	7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd	lb.	1.30	—
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies	lb.	1.65	—
Cadmium-mercury lithopone red, dark shade, bbls., same basis	lb.	1.95	—
Red, light shade, bbls., same basis.	lb.	1.72	—
Red, medium shade, bbls., same basis	lb.	1.87	—
Red, medium light shade, bbls., same basis	lb.	1.80	—
Red, maroon shade, bbls., same basis	lb.	2.03	—
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies	lb.	2.76	—
Orange, bbls., same basis	lb.	1.58	—
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis	lb.	1.72	—
Red, dark shade, bbls., same basis.	lb.	2.56	—
Red, light shade, bbls., same basis.	lb.	1.88	—
Red, medium shade, bbls., same basis	lb.	2.00	—
Red, medium-light shade, bbls., same basis	lb.	2.23	—
Calmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies	lb.	1.19	—
Caffeine, NF, citrated, dms., 100-lb. lots or more	lb.	2.70	—
USP, nat., cryst., anhyd., dms., 100-lb lots or more	lb.	2.10	—
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more.	lb.	1.96	—
USP, syn., anhyd., dms., 100-lb. lots or more	lb.	2.10	—
cryst., hydrous, dms., 100-lb. lots or more	lb.	1.96	—
Cajuput oil, native, cns.	lb.	1.75	2.00
Redist., USP, cns.	lb.	1.90	2.10
Calamine, USP, dms.	lb.	.34	—
Calamus oil, bots.	lb.	12.00	20.00
Calciferol, cryst., 10-kilo or more lots, weks gram.		.54	—
1-10 kilo lots	gram.	.55	—
Calciferol, in edible oil (see Viosterol).			
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted	lb.	3.10	—
Calcium arsenate, dealers, bgs., c.l., frt. alld	lb.	.09	.09¼
bgs., l.c.l., same basis	lb.	.10	.10½
Calcium bromide, NF, jars, 100 lbs. or more	lb.	.97	—
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd	ton.	149.00	—
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works	ton.	10.50	—
Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works.	ton.	32.00	34.00
water-grd., ½ to 10 microns, bgs., c.l., works	ton.	30.00	—
10 to 20 microns, bgs., c.l., works	ton.	17.00	18.00
precip., dense, bgs., c.l., works.	ton.	30.00	38.50
bgs., l.c.l., works	ton.	45.00	53.50
medium, bgs. c.l., works	ton.	38.00	—
bgs., l.c.l., works	ton.	48.00	53.00
surface treated, bgs., c.l., works.	ton.	42.00	44.00
bgs., l.c.l., works	ton.	57.00	59.00
ultrafine, bgs., c.l., works.	ton.	117.50	167.50
bgs., l.c.l., works	ton.	137.50	187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l., works, frt. equald.	ton.	39.30	—
Flake, 77-80%, paper bgs., c.l., works, frt. equald	ton.	32.00	—
Liquor, 40%, tanks, frt equald.	ton.	12.50	—
Powd., 77% min., paper bgs., c.l., works, frt equald	ton.	37.00	—
Purif., gran., dms.	lb.	.27	—
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald	ton.	29.50	—
dms., l.c.l. works frt equald.	ton.	36.00	73.00
USP, gran., dms.	lb.	.32	—
Calcium chromate, bgs., dlvd	lb.	.37	—
Calcium cyanide dms., c.l., dlvd. E. of Rockies	lb.	.20	—
dms., l.c.l., same basis	lb.	.24	.55
Calcium cyclamate, 100-lb. dms	lb.	1.95	—
Calcium gluconate, USP, AA grade, 100-lb. dm., ton	lb.	.73½	—
USP, powd., 100-lb. dm., ton	lb.	.66½	—
Calcium hydride, lump, dms., works.	lb.	2.20	3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies	cs.	23.85	25.60
100-lb dms., same basis	dm.	33.30	36.55
Calcium hypophosphite, dms, 1,000-lb. lots	lb.	1.28	—
Calcium iodide, jars	lb.	4.52	—
Calcium lactate, NF, dms., f.o.b. works	lb.	.43	.46
Calcium mandelate, USP, 150-lb. dm., works	lb.	3.25	—
Calcium naphthenate, liq., 4% Ca., dms., frt equald	lb.	.30	—
Calcium pantothenate, USP, jars, 1 kilo or more	kilo.	35.00	—
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).			
Calcium phenosulfonate, dms	lb.	1.24	1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt equald 100 lbs.		16.00	—
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald	ton.	86.00	—
bgs., c.l., t.l., f.o.b. Texas City works	ton.	80.50	—
bgs., l.c.l., frt. equald	ton.	96.00	—
Dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald	ton.	97.65	—
bgs., l.c.l., frt. equald	ton.	107.65	—
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.			
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs.		7.45	—
bgs., smaller lots, same basis. 100 lbs.		7.95	—
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs.		9.25	—
bgs., l.c.l., frt. equald. 100 lbs.		10.00	—
Calcium propionate, any quantity, dms., dlvd. E. of Rockies.	lb.	.34½	—

Prices W. of Rockies 3c. per lb. more.

Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N. Y.	lb.	.39	—
Calcium resinate, precip., dms., ton lots, frt. alld., works	lb.	.40¼	—
Calcium silicate, hydrated, bgs., c.l., works	lb.	.06	—
bgs., l.c.l., works	lb.	.06½	—
Calcium silicate paint grade (see Wollastonite).			
Calcium stearate, ctns., c.l.	lb.	.39	—
ctns., l.c.l.	lb.	.40	.44
Calcium sulfate (see Gypsum).			
Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works	lb.	4.32	—
NF, mild, precip., dms., 100-lbs., f.o.b. works	lb.	5.67	—
Camphene, 46° m.p., dms. incl., c.l., works	lb.	.15	—
dms. incl., l.c.l. same basis	lb.	.16½	—
tanks, same basis	lb.	.12½	—
Camphene chlorinated, 67-69% (see Toxaphene).			
Camphor, monobromated, NF, dms., kgs	lb.	3.63	3.70
Nat., USP, powd., cs., 100-lb. lots.	lb.	.60	.65
tablets, 1-oz. cs.	lb.	.85	.90
Nat., USP, gran., bbls., 2,000-lb. lots	lb.	.59	—
Syn., tech., 1 bbl. or more	lb.	.48	—
Syn., USP, gran., powd., bbls., 1,000-lb. lots	lb.	.60	—
bbls., smaller lots	lb.	.61	—
tablets, ctns., 1,000-lb. lots.	lb.	.85	—
ctns. 500-lb. lots	lb.	.86	—
ctns., smaller lots	lb.	.87	—
Camphor oil, sassafrassy, dms.	lb.	.35	.55
White, dms.	lb.	.26	.50
Cananga oil, native, cns.	lb.	5.00	6.50
Rectified, cns.	lb.	7.25	10.00
Candelilla wax, crude, bgs	lb.	.55	.58
Refd., pure, bgs	lb.	.60	.63
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.			
Cantharides, Chinese, cs.	lb.	1.00	—
powd., bgs.	lb.	1.15	—
Russian, bgs.	lb.	2.00	2.15
powd., bgs.	lb.	2.15	2.30
Caprie acid, dms.	lb.	.32¼	.34¾
tanks	lb.	.29¾	—
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works	lb.	.52	—
bgs., l.c.l., l.t.l., same basis	lb.	.57	—
tanks, same basis	lb.	.49	—
Capryl alcohol, 85% dms., c.l., t.l., works	lb.	.19	—
dms., l.t.l., same basis	lb.	.19½	—
tanks, frt. equald.	lb.	.16½	—
Sec., 92-99%, dms., c.l., f.o.b. works	lb.	.22	—
dms., l.c.l., f.o.b. works	lb.	.23	—
tanks, f.o.b. works	lb.	.19½	—
Caprylic acid, dms.	lb	32¼	.34¾
tanks	lb.	.29¾	—

Capsicum (see Pepper red).

Capsicum oil (see Capsicum oleoresin).

Capsicum oleoresin, NF, from dom. pepper, dms	lb.	4.00	—
NF, from African pepper, dms.	lb.	4.50	—
Caraway oil, NF, dms.	lb.	3.15	3.40
Caraway seed, Danish, bgs.	lb.	.16	—
Dutch, bgs.	lb.	.20½	—
Polish, bgs.	lb.	.17¼	—
Carbazole, 97%, bbls, ton lots, works	lb.	1.05	—
Carbon black, channel, rubber beads, bulk, c.l., works	lb.	.08	—
bgs., c.l., works	lb.	.08½	—
bgs., l.c.l., works	lb.	.16¼	—
Furnace fast extruding, bgs., c.l., works	lb.	.06¾	—
ctns., l.c.l., whse.	lb.	.13½	—
Carbon black, high abrasion, bulk, c.l., works	lb.	.07¼	—
bgs., c.l., works	lb.	.07¾	—
bgs. l.c.l., dlvd. or whse	lb.	.14½	—
high modulus, bgs., c.l., works.	lb.	.06¼	—
ctns. l.c.l., whse.	lb.	.13	—
semi-reinforcing, bgs., c.l., works	lb.	.05¾	—
bgs., ctns., l.c.l., whse.	lb.	.12½	—
pigment, high color beads, ctns., c.l., works	lb.	.78	—
ctns., l.c.l., dlvd. or whse	lb.	.87	—
medium color, uncompressed, bgs., c.l., works	lb.	.14	—
bgs., l.c.l., dlvd. or whse	lb.	.22½	—
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E	ton.	60.00	115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E	ton.	55.00	—
Solid, bulk, wholesale, works	ton.	85.00	—
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points	lb.	.071	—
55-gal. dms., l.c.l., same basis	lb.	.086	.091
5-gal. dms., 30 dms. to c.l., same basis	lb.	.131	—
5-gal. dms., less than 30 dms., same basis	lb.	.161	—
tanks, dlvd.	lb.	.0545	—
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld.	lb.	.12¾	—
dms., l.c.l., frt. alld.	lb.	.15¼	—
Tech., consumers, dms., c.l., t.l., frt. alld	lb.	.11¾	—
dms., l.c.l., l.t.l., frt. alld	lb.	.14¼	—
tanks, frt. alld	lb.	.10¾	.11¼
Carboxymethyl cellulose (see CMC).			
Carbromal, NF, dms., 100-lb lots, works	lb.	4.00	4.25
dms., smaller lots, works	lb.	4.10	4.75
Cardamom oil, NF, bots.	lb.	39.00	42.00
Cardamom seed, bleached "A"	lb.	3.50	—
Bleached "B"	lb.	3.10	—
Decorticated Alleppey, cs.	lb.	2.30	—
Guatemala, cs.	lb.	3.05	—
Green, Alleppey, bgs.	lb.	2.15	—
Ceylon, bgs.	lb.	2.15	—
Carmine No. 40, NF, bulk, 100-lb lots or more, dlvd.	lb.	16.80	—
bulk, smaller lots, dlvd.	lb.	16.90	17.30
Carnauba wax, chalky, bgs., ton lots	lb.	.73	.74
North Country, No. 2, crude, bgs., ton lots	lb.	.82	.84
refd., pure, ton lots	lb.	.91	.92
North Country, No. 3, Ceara, ton lots	lb.	.74	.75
Ceara, refd., pure, bgs., ton lots	lb.	.82	.83
North Country, No. 3, Parnahyba, ton lots	lb.	.75	.76
Parnahyba, refd., pure, bgs., ton lots	lb.	.83	.84
Carnauba wax, No. 1, Ceara, yellow, bgs., ton lots	lb.	1.02	1.03
Parnahyba, yellow, bgs., ton lots	lb.	1.03	1.05
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.			
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd	gram.	.20½	—
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works	million units.	.12	—
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd	million units.	.144	—
b-Carotene, in vegetable oil, sea., kilo.		240.00	—
solid suspension, 400,000 A units per gram, cns	kilo.	57.60	—
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns	kilo.	72.00	—
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns.	lb.	5.00	5.40
Carvol, bots.	lb.	.34	.36
Cascara sagrada bark, bulk	lb.	.56	—
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works	lb.	.64	—
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works	lb.	.72	—
Imp., inedible, acid-precip., Argentine, bgs., c.l., ex-dock, Eastern seaports	lb.	.20¼	.20½
New Zealand, bgs., c.l., same basis	lb.	.24	—
Cashewnut shell, liquid, treated, dms., c.l., Newark, N. J.	lb.	.22	—
dms., ton lots, same basis	lb.	.23	—
dms., ton lots, same basis	lb.	.25	—
Cassella acid, dms., frt. alld., 100% basis	lb.	1.44	1.75
Cassia oil, redist., USP, cns.	lb.	7.50	9.00
Cassia, Padang, "A," bls.	lb.	.30	—
"B," bls.	lb.	.29	—
"C," bls.	lb.	.28	—
Korintje "A," bls.	lb.	.34	—
"B," bls.	lb.	.30	—
"C," bls.	lb.	.30	—
Castor oil, dom., blown, dms., c.l.	lb.	.2550	—
dms., l.c.l.	lb.	.2650	—
Castor oil, dom., dehydrated, bodied, dms., c.l.	lb.	.2700	—
dms., l.c.l.	lb.	.2850	—
tanks	lb.	.2500	—
dehydrated, unbodied, dms., c.l.	lb.	.2500	—
dms., l.c.l.	lb.	.2660	—
tanks	lb.	.2360	—
hydrogenated, bgs., c.l.	lb.	.2450	—
bgs., ton lots	lb.	.2850	—
bgs., l.c.l., dlvd.	lb.	.3050	—
No. 1, dms., c.l.	lb.	.2150	—
dms., l.c.l.	lb.	.2300	—
tanks	lb.	.2000	—
No. 3, tech., dms., c.l.	lb.	.2125	—
dms., c.l.,	lb.	.2225	—
tanks	lb.	.1925	—
Refd., deod., dms., c.l.	lb.	.2650	—
dms., l.c.l.	lb.	.2750	—
tanks	lb.	.2450	—
USP, dms., c.l.	lb.	.2350	—
dms., l.c.l.	lb.	.2450	—
tanks	lb.	.2150	—
Imported, No. 1, Braz., tanks	lb.	.18¾	.19
Sulfonated, 50%, dms., works	lb.	.13	.13½
75%, dms., works	lb.	.19	.19½
Castor oil acids, dehydrated, dms.	lb.	.44¼	.46¼
Split, dms.	lb.	.37¼	.38¼
Castor pomace, bgs., c.l., works	ton.	35.00	—
Castoreum nat., cns.	lb.	5.25	—
Syn., cns.	lb.	9.00	—
Catechol, CP, cryst., fib., dms., works	lb.	2.17½	—
Resub., dms., works	lb.	4.29½	—
Catnip leaves, Southern, bls.	lb.	Nominal.	

Caustic potash (see Potash caustic).

Caustic soda (see Soda, caustic).

Cedarleaf oil, USP XIII cns., dms.	lb.	3.25	3.50
Cedarwood oil, cns., dms.	lb.	.77	.85
Celery seed, French, bgs.	lb.	.33	—
Indian, bgs.	lb.	.19	—
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E	lb.	.36	.51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E	lb.	.545	.555
27% butyryl content, bgs., dlvd. E	lb.	.595	.605
38% butyryl content, bgs., dlvd. E	lb.	.545	.555
38% butyryl content, half-second, bgs., dlvd. E	lb.	.545	.555
50% butyryl content, bgs., dlvd. E	lb.	.585	.595

Cellulose gum, methyl (see Methyl Cellulose).

Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt alld	lb.	.57	—
bgs., smaller lots, same basis	lb.	.59	—
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more	lb.	1.40	—
77% CeO, fib. dms., 100-lb. lots or more	lb.	1.74	—
Cerium oxalate (see Rare earth oxalate)			
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd.	lb.	1.85	1.90
bgs., smaller lots, dlvd.	lb.	2.15	—
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E	lb.	.41½	—
fib. cns., l.c.l., same basis	lb.	.43½	—
tanks, same basis	lb.	.39	—
Extra, cns., c.l., t.l., dlvd. E	lb.	.48½	—
fib. cns., l.c.l., same basis	lb.	.50½	—
tanks, same basis	lb.	.46	—

Chalk (see Calcium carbonate).

Chamomile flowers, Hungarian, bls	lb.	1.10	—
Roman, cs.	lb.	1.50	1.75
Chamomile oil, blue Hungarian, bots	lb.	350.00	—
Charcoal, activated, NF, fib. dms., c.l., works	lb.	.25	.32
fib. dms., 5-ton lots, works	lb.	.26½	.32½
fib. dms., smaller lots, works	lb.	.27	.50

Charcoal, black (see Charcoal, activated).

Charcoal, bone (see Bone black).

Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant	ton.	55.00	—
briquets, bulk, c.l., f.o.b. plant	ton.	80.00	—
5-lb. paper bgs., c.l., same basis	ton.	106.00	—
20-lb. paper bgs., c.l., f.o.b. plant, ton		90.00	—
40-lb. paper bgs. c.l. same basis	ton.	86.00	—
Chenopodium oil, NF, cns.	lb.	4.25	5.00
Chicago acid, paste, bbls., frt. alld.	lb.	3.21	—

Chinawood oil (see Tung oil).

Chloral, tech., 94% min., dms., c.l., works	lb.	.23	—
dms., l.c.l., works	lb.	.24	—
tanks, multiple units, 5 cars, dms., l.c.l., works	lb.	.21	—
Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00	—
jars, 500-lb. lots	lb.	1.03	—
jars, 100-lb. lots or less	lb.	1.05	—
Chlordan, agricultural, dms., c.l., frt. alld	lb.	.65	—
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld	lb.	.66	—
Clarified, dms., c.l., frt. alld	lb.	.69	—
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld	lb.	.70	—
Chlorinated paraffin, 42%, dms., c.l. frt. alld	lb.	.16¾	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.17¼	—
70%, dms., c.l., same basis	lb.	.18½	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½	—
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works	lb.	.60	—
ctns., l.c.l., works	lb.	.61	—
125, 1,000 cps., ctns., c.l., works.	lb.	.70	—
ctns., l.c.l., works	lb.	.71	—
Chlorine, liq., cyls., c.l., works, frt. equald	lb.	.11	—
cyls., l.c.l., Metropolitan area	lb.	.12½	.13¾
tanks, single units, works, frt. equald. 100 lbs.		3.25	—
tanks, multiple units, 5 cars, works, frt. equald 100 lbs.		4.15	—
tanks, multiple units, 4 cars, same basis 100 lbs.		4.35	—
tanks, multiple units, 2 cars, same basis 100 lbs.		5.35	5.85
tanks, multiple units, 1 car, same basis⅝ 100 lbs.		6.25	7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l.	lb.	.23½	.25½
dms., l.c.l.	lb.	.24½	—
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald	lb.	.20	—
frt. equald	lb.	.19	—
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld	lb.	1.03	—
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.38	—
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld	lb.	.66	—
m-Chloroaniline, dms., c.l., frt. alld.	lb.	.75	—
dms., l.c.l., same basis	lb.	.77	—
tanks, same basis	lb.	.73	—

o-Chloroaniline, dms., c.l., frt. alld.	lb.	.52 - —
dms., l.c.l., same basis	lb.	.54 - —
tanks, same basis	lb.	.50 - —
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77 - —
dms., l.c.l., same basis	lb.	.79 - —
o-Chlorobenzaldehyde, dms., t.l., works	lb.	1.05 - —
dms., l.t.l., same basis	lb.	1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works	lb.	1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10 - —
fib. dms., smaller lots, works	lb.	1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works	lb.	2.25 - —
fib. dms., less than 2,000-lbs., same basis	lb.	2.30 - —
Chloroform, tech., dms., c.l., dlvd. E	lb.	.18 - —
dms., l.c.l., same basis	lb.	.19 - —
tanks, same basis	lb.	.17 - —
USP, dms., c.l., dlvd.	lb.	.27 - —
dms., l.c.l., dlvd.	lb.	.30 - —
tanks, minimum 4,000 gals. dlvd.	lb.	.25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis	lb.	.81 - —
Powd., dlvd. E., 100% basis	lb.	.85½- —
4-Chloro-2-nitroaniline, powd., dlvd. E	lb.	.86 - —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld.	lb.	.75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld.	lb.	.99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld	lb.	.17 - —
o-Chlorophenol, dms., c.l., frt. equald.	lb.	.37 - —
dms., l.c.l., same basis	lb.	.38 - —
p-Chlorophenol, dms., c.l., frt. equald.	lb.	.37 - —
dms., l.c.l., same basis	lb.	.38 - —
Chloropicrin, coml., cyls., 180 lbs., frt. alld.	lb.	1.07 - —
cyls., 100 lbs., same basis	lb.	1.08 - —
cyls., 50 lbs., same basis	lb.	1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald.	lb.	.0465- —
dms., l.c.l., frt. equald	lb.	.0515- —
tanks, frt. equald	lb.	.0415- —
Chlorosulfonic acid, in stainless steel dms. ½c. per lb. higher		
o-Chlorotoluene, tech., dms., t.l., works	lb.	.37 - —
dms., l.c.l., l.t.l., same basis	lb.	.38 - —
Choline bitartrate, fib. dms., frt. adjusted	kilo	2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted	kilo.	2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted	kilo.	2.75 - 3.00
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., dlvd. E. of Rockies.	lb.	.43 - —
blue content, 16-30%, bbls., same basis	lb.	.44 - —
medium blue content, 41-45%, bbls., same basis	lb.	.44 - —
blue content, 45-49%, bbls., same basis	lb.	.45 - —
Reduced color 25%, bbls., same basis	lb.	.20 - —
Chrome green prices 1c. higher W of Rockies.		
Chrome orange, CP, bbls., dlvd. E of Rockies	lb.	.35 - —
Chrome orange prices 1c. higher W. of Rockies.		
Chrome yellow, CP, bbls., dlvd. E. of Rockies.	lb.	.35 - —
Chrome yellow price 1c. higher W. of Rockies.		
Chromic acid, 99¾%, dms., c.l., works, frt. equald	lb.	.29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area	lb.	.30 - .31
Chromic acid, NF (see Chromium trioxide).		
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works.	lb.	.10 - —
Chromium fluoride, bbls., works	lb.	.51 - .52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld.	lb.	1.20 - —
Pure, bgs., c.l., frt. alld	lb.	.44½- —
bgs., l.c.l., same basis	lb.	.45¼- —
Chromium trioxide, NF, bots	lb.	1.15 - —
Cinchona bark, NF, red, broken, bgs	lb.	.25 - —
NF, yellow, broken, bgs	lb.	.35 - .40
Cinnamic acid, refd., bots	lb.	2.50 - 3.50
Cinnamic alcohol, bots.	lb.	1.60 - 1.75
Cinnamic aldehyde, dms.	lb.	.80 - 1.00
Cinnamon, Ceylon, No. 2, bgs	lb.	.56 - —
Ceylon, No. "0000," bgs	lb.	.76 - —
Cinnamon bark oil, bots	lb.	36.00 -70.00
Cinnamon leaf oil, crude, dms.	lb.	1.60 - 2.00
USP, (Cassia), cns., dms	lb.	8.50 -13.50
Citral, CP, bots.	lb.	3.60 - 4.00
Extra, bots.	lb.	3.60 - 5.00
Syn., dms.	lb.	7.25 - 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l	lb.	.29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.30 - .30½
bgs., dms., smaller lots	lb.	.30½- .31
USP, hydrous, fine gran., bgs., dms., c.l	lb.	.27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.28 - .28½
bgs., dms., smaller lots	lb.	.29 - .29½
Powdered citric acid ½c. per lb. higher.		
Citronella oil, Ceylon, dms	lb.	1.20 - 1.50
Java-type, dms.	lb.	.85 - 1.00
Citronellal, bots., dms	lb.	1.60 - 2.10
Citronellol, bots., dms.	lb.	1.90 - 2.50
Citronellol, synthetic, dms	lb.	1.70 - —
Civet, artif., bots	lb.	13.75 -15.00
Nat., bots.	oz.	8.50 -15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn	ton.	17.50 -21.50
crushed shed moisture, bulk, c.l., Tenn	ton.	8.00 -11.00
imp., airfloated, bgs., c.l., Atl. port	net-ton.	42.00 -45.75
lump, bulk, Atl. port	net-ton.	29.50 -35.75
Clay, China, dom., dry-grd., air-floated, 99%, 325 mesh, Georgia, bgs., c.l., works.	ton.	10.00 -12.00
Georgia, bgs., l.c.l., works.	ton.	15.50 - —
dom., airfloated, 99%, 800 mesh bgs., c.l., Georgia, works	ton.	13.50 -14.50
bgs., l.c.l., ex-whse	ton.	35.00 -36.00
imp., white, lump, bulk, c.l. ex-dock, Philadelphia, Portland, Me	long-ton.	20.00 -35.00
white, powd., bgs., c.l., ex dock.	net-ton.	50.00 - —
bgs., l.c.l., ex whse	net-ton.	60.00 -70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York	gal.	18 - —
Group 3	gal.	.12875- —
Houston, Texas	gal.	.145 - —
140°F Flash, tankcars, New Jersey or New York	gal.	.205 - —
Group 3	gal.	.154 - —
Houston, Texas	gal.	.17 - —
Cleve's acid, tech., mixed, solid, dms., frt. alld	lb.	1.05 - —
1.6, tech., solid, dms., frt. alld.	lb.	.77 - —
1,7, tech., dms., frt. alld	lb.	2.20 - —
Cloves, Madagascar, bgs	lb.	.37½- —
Zanzibar, bgs.	lb.	.37 - —
Clove bud oil, USP, dms	lb.	2.70 - 3.60
Clove leaf oil, crude, dms.	lb.	1.25 - —
CMC, crude, 96.4% low or medium vis., bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis	lb.	.41½- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis	lb.	.43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis	lb.	.41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis	lb.	.43½- —
purif., high vis. (see Cellulose gum).		
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld	lb.	.57 - —
bgs., smaller lots, same basis.	lb.	.59 - —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.		
Coaltar, crude, resale for soln., tanks, works	gal.	.17 - —
Refd., resale, indust., dms., c.l., ex whse	gal.	.35 - —
dms., l.c.l., ex whse	gal.	.39 - —
tanks, works	gal.	.20½- —
Coaltar pitch, aluminum, bulk, works.	ton.	44.00 - —
Carbon and indust., bulk, works	ton.	44.00 - —
Core, bulk, works	ton.	40.50 - —
Fiber, bulk, works	ton.	48.00 - —
Roofing, 140-155°F., Federal Specification RP-381 Type 1,		
Cobalt acetate, 23.7% Co., dms., dlvd	lb.	1.04 - —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies	lb.	4.90 - —
Cobalt blue prices 1c. higher W. of Rockies.		
Cobalt blue, imitation (see Ultramarine blue).		
Cobalt carbonate, 48% Co., powd., bgs., dlvd	lb.	1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd	lb.	.93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd	lb.	2.05 - —
Cobalt linoleate, fused 8½% Co., dms.	lb.	.71½- —
Liq., 6% Co., dms	lb.	.57½- —
Cobalt metal, 99%, dms., f.o.b. carrier	lb.	1.50 - —
Cobalt naphthenate, liq., 6% Co., dms., dlvd	lb.	.48¾- —
Cobalt nitrate, 20.1% Co., bbls., dlvd.	lb.	.75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R.	lb.	1.15 - —
70-71% Co. kgs., same basis	lb.	1.12 - —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.		
Cobalt phosphate, powd., 32.1% Co., dms., dlvd	lb.	1.35 - —
Cobalt resinate, fused, 3% Co., dms.	lb.	.33½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd	lb.	.64 - —
Monohydrated, 33% Co., dms., dlvd	lb.	1.09 - —
Cobalt tallate, 6% Co., dms., dlvd.	lb.	.44 - —
Cocaine, USP. cns., 100-oz. lots, f.o.b. works	oz.	17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works	oz.	13.75 - —
Cocillana bark, bls	lb.	18 - .20
Cocoa butter, bgs.	lb.	.58 - .63
Coconut oil, crude, tanks, New York	lb.	.15¼- —
tanks, Pac. coast	lb.	.13 - —
Refd., deodorized, dms.	lb.	.22 - .22½
Coconut oil acids, dist., dms.	lb.	.26½- .29
tanks	lb.	.24 - —
Double dist. (stripped), dms	lb.	.27½- .30
tanks	lb.	.25 - —
Cod oil, dms., spot	lb.	.08⅜- .08½
Codeine, NF, cns., 100-oz. lots	oz.	13.25 - —
Codeine hydrochloride, cns., 100-oz. lots	oz.	11.75 - —

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Codeine phosphate, USP, cns., 100-oz. lots	oz.	10.25	—
Codeine sulfate, USP, cns., 100-oz. lots	oz.	10.75	—
Codliver oil, USP, dms	gal.	1.40	1.70
Cohosh root, black, bls	lb.	.20	.25
Blue, bls.	lb.	.20	.25
Colchicine, USP, bots	oz.	29.00	—
Colchicum root, bls	lb.	.35	.45
Colchicum seed, bgs	lb.	.75	.80
Collodion, USP, dms	lb.	.32½	—
USP flexible, dms	lb.	.34	—
Colocynth pulp, bls.	lb.	.75	—
Colombo root, bls	lb.	.16	.18
Condurango bark, bls	lb.	.18	.20
Congo copal gum, No. 1, bgs	lb.	.26	.27
No. 2, bgs.	lb.	.23	.25
No. 3, bgs.	lb.	.18	.20
Copaiba balsam, cns., dms	lb.	.60	.65
Copaiba oil, cns	lb.	1.35	2.00
Copper acetate, bbls., c.l., works	lb.	.53	—
bbls., l.c.l., works	lb.	.54	—
Copper carbonate, 55%, bgs., c.l., works	lb.	.3635	—
bgs., l.c.l., works	lb.	.3785	—
Copper chloride, cupric, anhyd., dms., works	lb.	.45½	.46
cryst., dihydrate, dms., works.	lb.	.31	.31½
cryst., dried, dms., works	lb.	.39¼	.39¾
Copper chloride, cuprous, dms., works	lb.	.4135	.4435
Copper cyanide, tech., dms., 20,000-lb. lots or more	lb.	.609	—
dms., 1,000-lb. lots or more	lb.	.619	—
dms., smaller lots	lb.	.639	.65
Copper gluconate, dms	lb.	3.20	—
Copper hydrate, dry, dms., c.l., frt. E. of Miss	lb.	.53½	—
dms., l.c.l., same basis	lb.	.54	—
Copper metal, electrolytic, dlvd. Valley basis	lb.	.33	.36
Copper naphthenate, liq., 8% Cu, dms, frt. alld.	lb.	.26½	—
Copper nitrate, tech., cryst., dms., works	lb.	.30¾	.32¾
Copper oleate, solid, 9% Cu, dms., works	lb.	.45	—
Copper oxide, black, bbls., 100-5,000-lb. lots, works	lb.	.49¼	—
Copper oxide, red, 97%, USN Type 1, bbls., 100-5,000-lb. lots.	lb.	.50½	—
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works.	lb.	.48½	—
Copper quinolinolate, 18% Cu, dms., ton lots	lb.	4.25	—
10% active quinolinolate, dms	lb.	1.14	1.15
Copper resinate, precip., dms., frt. alld.	lb.	.41½	—
Copper sulfate, CP, gran., dms., works	lb.	.1885	—
Cryst., 99%, bgs., c.l., works. 100 lbs.		13.00	—
bgs., l.c.l., works	100 lbs.	13.25	15.75
Monohydrated, 35%, dms., c.l., works	100 lbs.	24.00	—
dms., l.c.l., works	100 lbs.	24.75	—
Tribasic, distributors, bgs., c.l., works	100 lbs.	29.60	—
bgs., l.c.l., works	100 lbs.	31.10	—
Copper undecylenate, dms	lb.	2.75	—
Copra, Atl., Gulf ports, c.i.f.	ton.	182.50	—
Pac. ports, c.i.f.	ton.	177.50	—
Coriander oil, USP, bots.	lb.	8.75	—
Coriander seed, Moroccan, bgs.	lb.	.09½	—
Rumanian, bgs.	lb.	.07½	—
Yugoslavian, bgs.	lb.	.08½	—
Corn oil, crude, tanks, works	lb.	.11½	—
Foots (soapstock) acid 95%, tanks, New York	lb.	.05¼	—
Refd., salad, dms.	lb.	.1723	.1750
tanks	lb.	.1523	—
Corn oil acids, dist., dms.	lb.	.15¾	.18¼
tanks	lb.	.1648	—
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min.	100 lbs.	7.30	—
paper bgs., l.c.l.	100 lbs.	7.45	—
Corn syrup, 42° Be., non-ret. dms., c.l.	100 lbs.	7.31	—
non-ret. dms., l.c.l.	100 lbs.	7.46	—
Corrosive sublimate (see Mercuric chloride).			
Cortisone acetate, USP, bots., kilo or more	gram.	1.05	1.75
Costus oil, bots	oz.	6.00	—
Cottonseed meal, 41%, bgs., Memphis	ton.	58.00	Nom.
Cottonseed oil, crude, tanks, South, East	lb.	.10½	Nom.
tanks, Valley	lb.	.10½	—
tanks, Texas, Lubbock	lb.	.09¾	—
tanks, Texas, Waco	lb.	.09¾	—
Foots (soapstock), acid, 95%, tanks, New York	lb.	.03½	—
Refd., salad, dms.	lb.	.15⅛	.15¼
tanks	lb.	.13⅛	—
Cottonseed oil acids, dist., dms.	lb.	.15¾	.18¼
tanks	lb.	.13⅛	—
Coumarin, NF, cryst., dms	lb.	3.30	3.40
Cramp bark, NF, bls	lb.	.90	1.00
Cream of tartar (see Potassium bitartrate).			
Creosote carbonate, NF, bots., cbys.,	lb.	3.05	3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted	gal.	.24	—
Crude, soln. 80%, tanks, works.	gal.	.226	—
Refd., dms., c.l., works	gal.	.50	—
dms., l.c.l., same basis	gal.	62	—
tanks, same basis	gal.	.38	—
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.			
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area	lb.	1.72	1.77
Hardwood, NF, cbys., dms., same basis	lb.	1.42	1.47
Pinewood, dms., incl., c.l., works.	lb.	.0561	—
dms., incl., l.c.l., works	lb.	.0634	—
dms., incl., l.c.l., ex whse, New York	lb.	.0745	—
tanks, works	lb.	.0460	—
Creosote oil (see Creosote coaltar).			
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld.	lb.	.16½	—
non-ret. dms., l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.145	—
Cresol, USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same basis	lb.	.18	—
non-ret. dms., l.c.l., same basis.	lb.	.19	—
tanks, same basis	lb.	.16	—
m-Cresol, 95-98%, dms., c.l., works.	lb.	.60	—
dms., l.c.l., works	lb.	.61	—
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald	lb.	.18	—
dms., l.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.16	—
2.97% 2°C., dms., c.l., frt. equald.	lb.	.22	—
dms., l.c.l., same basis	lb.	.23	—
tanks, same basis	lb.	.20	—
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald	lb.	.17	—
ret. dms., l.c.l., same basis	lb.	.18	—
tanks, same basis	lb.	.15	—
30°-30.49°C. m.p., dms., c.l., frt. equald	lb.	.16½	—
ret. dms., l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.14½	—
o-Cresol, 30.5°C. m.p. and over, ret.			
p-Cresol, 29°-29.9° C. m.p., dms., c.l., frt. equald	lb.	.16	—
ret. dms., l.c.l., same basis	lb.	.17	—
tanks, same basis	lb.	.14	—
25°-28°C. m.p., dms., c.l., frt. equald	lb.	.15	—
ret. dms., l.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.13	—
p-Cresol, 98%, dms., c.l., dlvd	lb.	.52	—
dms., l.c.l., dlvd	lb.	.53	—
tanks, dlvd.	lb.	.49	—
2,3-Cresotic acid, dms., ton lots, works	lb.	.70	—
dms., smaller lots, works	lb.	.72	—
p-Cresyl methyl ether, cns	lb.	1.80	2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald	gal.	1.35	—
dms., l.c.l., same basis	gal.	1.40	—
tanks, same basis	gal.	1.15	—
metapara content 25% or less, dms., c.l., t.l., same basis	gal.	1.20	—
dms., l.c.l., same basis	gal.	1.25	—
tanks, frt. equald	gal.	1.00	—
Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more.	gal.	1.03½	—
less than 50 dms., same basis	gal.	1.05	1.15
tanks, same basis	gal.	1.00	—
Crotonaldehyde, 91-93%, dms., l.c.l, works	lb.	.25	—
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd	lb.	.36	—
Cryolite, nat., indust., bgs., c.l., works	100 lbs.	13.00	—
bgs., l.c.l., works	100 lbs.	14.25	—
Cube root, powd., 5% rotenone, bgs., t.l., works	lb.	.21	—
bgs., l.t.l., works	lb.	.22	—
Cubeb berries, NF, bgs	lb.	1.00	—
Powd., cs.	lb.	1.15	—
Cubeb oil, cns	lb.	12.00	16.00
Cumene, dms., c.l., works	lb.	.12	—
dms., l.c.l., works	lb.	.14	—
tanks, works	lb.	.11	—
Cumin seed, Iranian, bgs	lb.	.23	—
Moroccan, bgs.	lb.	.31	—
Turkish, bgs.	lb.	.27	—
Cumin seed oil, bots., cns	lb.	15.50	17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract.	ton.	57.00	—
Fertilizer, pulv., 21% N, bgs., works	unit-ton.	2.85	—
Indust. grade, bgs., c.l. works.	ton.	75.00	—
bgs., l.c.l., works	ton.	96.00	—
Indust. grade, 6-16 mesh, dms., c.l., works	ton.	120.00	—
dms., l.c.l., works	ton.	140.00	—
Cyclohexane, 99%, tech., dms., c.l., dlvd. E. of Rockies	gal.	1.02	—
dms., l.c.l., same basis	gal.	1.10	—
dms., c.l., dlvd. W. of Rockies	gal.	.77	—
dms., l.c.l., same basis	gal.	.85	—
tanks, works	gal.	.55	—
98%, tech., 40-dm. lots or more, f.o.b. works	gal.	.56	—
5-39 dms., same basis	gal.	.60	—
tanks, same basis	gal.	.36	—
Cyclohexanol, tech., dms., c.l., works, frt. alld. E	lb.	.28½	—
dms., l.c.l., works, same basis.	lb.	.29½	—
tanks, works, same basis	lb.	.26	—
Cyclohexanone, tech., dms., c.l., works	lb.	.33½	—
dms., l.c.l., works	lb.	.34½	—
tanks, works	lb.	.31	—

Celanese chemicals make hea

From Celanese research come the chemical answers to industry's critical problems of high-temperature applicatio
By eliminating many of the basic hazards of heat and fire, Celanese is contributing to the safety of industry.

Synthetic chemicals by Celanese help protect against extreme loss by fire or explosion. They include Cellulubes, fire resistant lubricants and hydraulic fluids . . . Cellutherms, for jet engine-temperature applications . . . fire resistant plasticizers . . . fire retardant additives for paints and varnishes. Celanese research has contributed substantially towar conquering the problems of fire and heat in industry. A pioneer in fire-resistant fluids and chemicals, Celanese has years of experience to put to work to make your plant or application safer, more efficient. For more details, please write to us, outlining your specific interest. Celanese Chemical Company, a Division of Celanese Corporation of America, Dept. 656-G, 180 Madison Avenue, New York 16, N. Y.

Celanese® Cellulube® Cellu

Cyclohexylamine, dms., c.l., works. lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs., dms., l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum, Batavia, A/E, cs. lb. No stocks.
East India, Batu, bold, bgs. lb. .15½- .18
nubs and chips, bgs. lb. .09 .10
black, bold, bgs. lb. .15½- .18
nubs and chips, bgs. lb. .12¼- .13½
unscraped, bgs. lb. .13 - .14½
pale, chips, bgs. lb. .15 - .17
pale, nubs, bgs. lb. .20¾- .24
Siam, cs. lb. .31½- .34
Singapore, No. 1, bgs. lb. .34 - .40
No. 2, bgs. lb. .29 - .32
No. 3, bgs. lb. No stocks.
dust, bgs. lb. .18 - .20
Dandelion root, bls. lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd. lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis lb. .24 - —
fib. dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
l-Decanol, tech., dms., c.l., dlvd. E. lb. .43½- —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd. lb. .23½- —
dms., l.c.l., dlvd. lb. .25 - —
tanks, dlvd. lb. .21 - —
Perfume grade, bots. lb. 1.00 - 2.00
Decyl alcohol, normal (see l-Decanol).
Deertongue leaves, bls. lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton. 57.07 - —
18% P, paper bgs., c.l., works. ton. 66.25 - 71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex. ton. 74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - —
Neutral (over 2% free fatty acid), 400-lb. dms lb. .19 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies. gal. .69½- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, dlvd., same basis gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .72 - —
dms., l.c.l., same basis gal. .77 - .83
tanks, same basis gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .69 - —
dms., l.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, same basis gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —

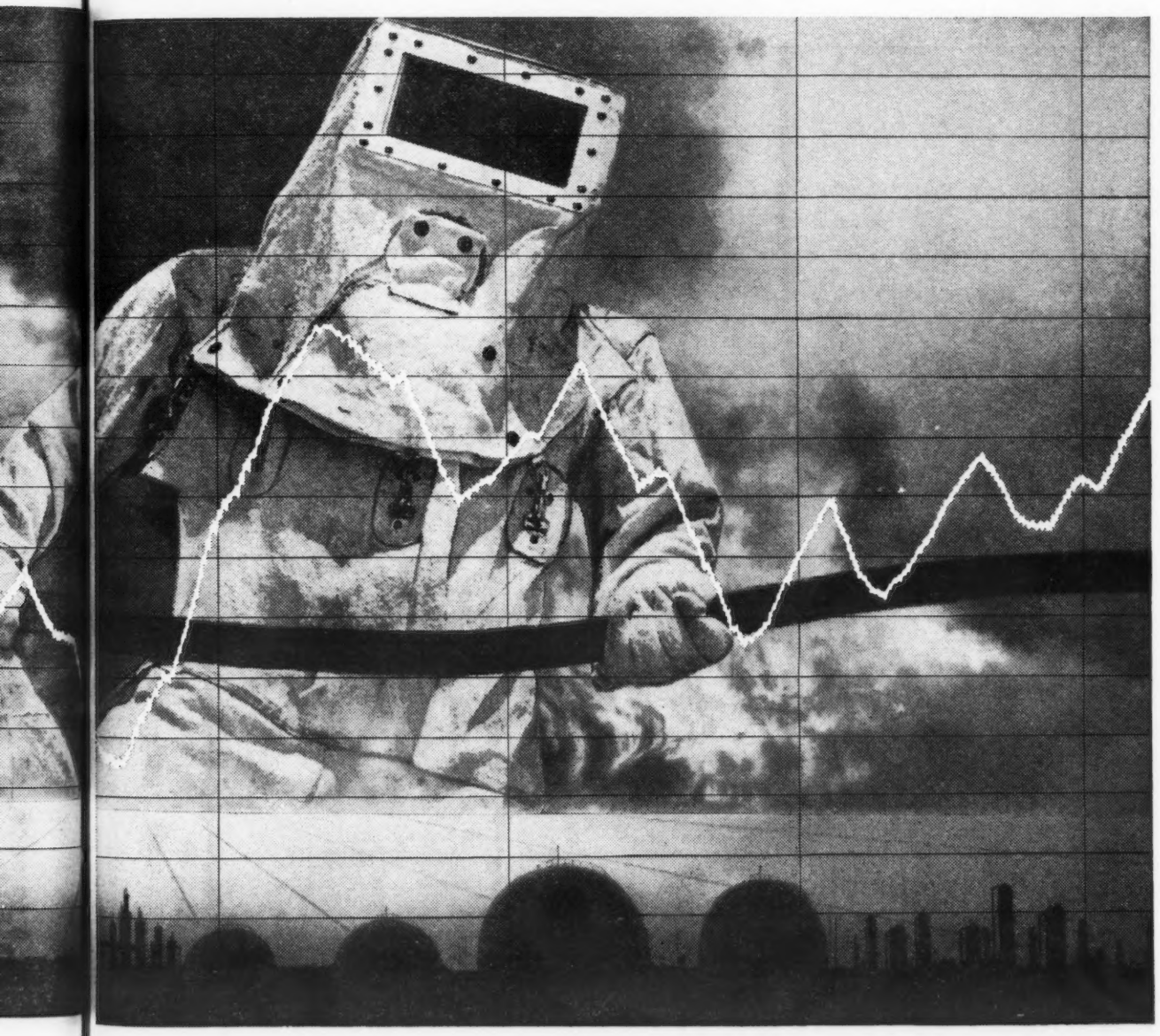
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.

West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.

d-Desoxyephedrine hydrochloride, dms lb. 15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l. 100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. 100 lbs. 9.37 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. 100 lbs. 9.27 - —
white, paper bgs., c.l. 100 lbs. 8.96 - —
paper bgs., l.c.l. 100 lbs. 9.11 - —

Corn dextrin in cotton bgs. 15c. per 100 lbs. higher

Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs. 14.70 - —
100-lb. dms. 100 lbs. 15.20 - —
Hydrated, coml., bgs., c.l., ex whse. 100 lbs. 7.45 - —
bgs., c.l., ex whse 100 lbs. 7.60 - —
USP, dms. lb. .19¾- —
Diacetyl, flavor grade, bots. lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Tech., dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Diallylamine, dms., c.l., dlvd. lb. .98½- —
dms., l.c.l., dlvd. lb. 1.00 - —
tanks, dlvd. lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
l.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., l.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .31 - —
dms., l.c.l., same basis lb. .32½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld. lb. .65½- —
Dibutylamine, dms., c.l., dlvd. lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanks, dlvd. lb. .25 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld. lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E lb. .12 - —
dms., 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks, works lb. .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks, works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis lb. .48 - —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 - —



and combustion behave...

Celanese CHEMICALS

Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver
Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Avenue, N. Y. 16.

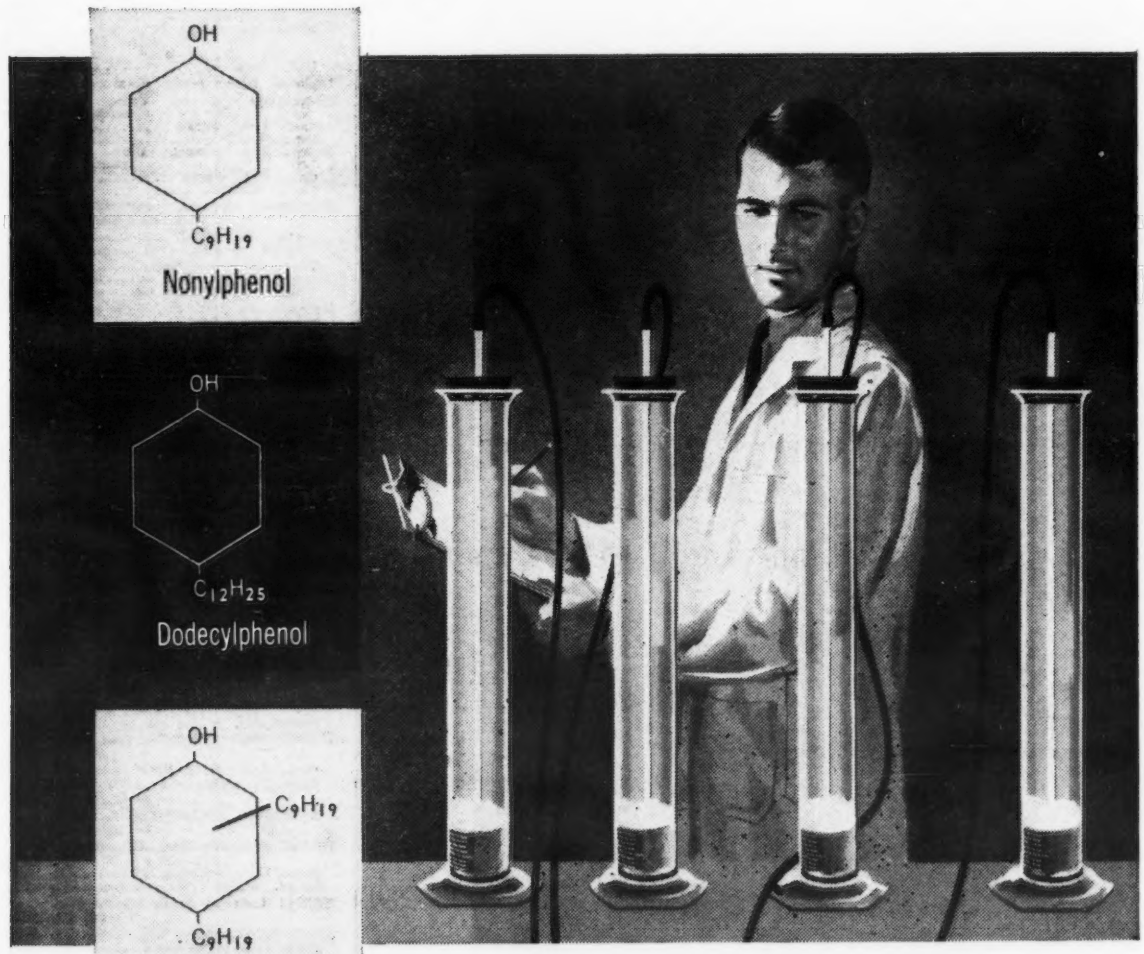
Didecyl Phthalate—Dipropylene Glycol

Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2.000 gals. lb. .26 - —
tanktrucks, 1,000-1.999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. lb. 1.85 - —
dms., l.c.l. dlvd. lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. lb. .28½- —
tanks, frt. alld. lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- —
dms., l.c.l., dlvd. lb. .71 - —
tanks, dlvd. lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2.000-lb. lots, same basis lb. .26 - —

Diethyl sulfate, dms., c.l., works lb. .19½- —
dms., l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer. dms., c.l., t.l., works. lb. 2.30 - —
5-44 dm. lots, works lb. 2.35 - —
1-4 dm. lots, works lb. 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine, dms., c.l., dlvd. E. lb. .52 - —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis lb. .19¼- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works lb. .32¼- —
tanks, dlvd. E. lb. .28¼- —

Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, dlvd. E. lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. E. lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd. lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
bots, 1-kilo lot kilo. 110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 - —
Digitoxin, USP, bots. gram. 4.20 - —
Diglycol laurate, dms. lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram. .035 - .036
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —

1,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs. or more lb. 1.11 - —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs. to 1.050 lbs. lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd. E lb. .11½- —
tanks, dlvd. E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tanktrucks, 1,000-1,999 gals., dlvd. lb. .26½- —
tankcars, tanktrucks, 2,000 gals., dlvd lo. .26 - —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms lb. 3.25 - 3.75
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 - —
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd lb. 1.225 - —
dms., l.c.l., dlvd. lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —
70% dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis. lb. .69½- —
tanks, dlvd., 100% basis lb. .66 - —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .28½- —
dms., l.c.l., works lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks, 2.000 gals., same basis lb. .26 - —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .16½- —
dms., l.c.l., works lb. .17 - —
tanks, works lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 - —
40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis. lb. .35½- —
tanks, frt. equald, 100% basis. lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 - —
Dinitroaniline orange toner prices 1c higher W. of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 - —
2,4-Dinitrophenol, bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld lb. .28½- —
dms., l.c.l., frt. alld lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 - —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., dlvd. E lb. .33 - —
tanks, dlvd. E. lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs., c.l., t.l., dlvd. E. lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E. lb. .41 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works lb. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankscars, works gal. .41 - —
Steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1.000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¾- —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .51¾- —
dms., l.c.l., works lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald. lb. .31 - —
bgs., l.c.l., same basis lb. .33 - —
Refd., fused, tanks, same basis lb. .28 - —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine bgs., dms., ton lots, frt. alld lb. .49 - —
bgs., smaller lots. frt. alld lb. .50 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼- —



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Dipropylene glycol methyl ether, dms., c.l., dlvd. E. lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.43 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld. lb. .69 - —
dms., smaller lots, frt. alld. lb. .70 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld. lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald. lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E. lb. .75 - —
dms., l.c.l., l.t.l., same basis lb. .76 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald. lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol, c.l., frt. alld. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1 lb.15.65 -17.60
No. 2 lb.15.65 -17.60
Green, FD&C, No. 1 lb.15.65 -17.60
No. 2 lb.19.60 -22.85
No. 3 lb.31.30 -35.90
Red, FD&C, No. 1 lb. 5.90 - 7.85
No. 2 lb. 3.30 - 4.10
No. 3 lb.19.60 -22.85
No. 4 lb. 5.55 - 7.50
Violet, FD&C, No. 1 lb.15.65 -17.60
Yellow, FD&C, No. 1 lb. 9.15 -11.05
No. 5 lb. 3.30 - 4.10
No. 6 lb. 3.30 - 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb.10.50 -10.95
Brown, D&C, No. 1 lb.15.65 -16.10
Green, D&C, No. 5 lb.15.65 -16.10
No. 6 lb.15.65 -16.10
No. 7 lb.14.35 -14.80
Orange, D&C, No. 3 lb.10.50 -10.95
No. 4 lb.19.60 -20.05
No. 5 lb. 3.80 - 4.25
Red, D&C, No. 17 lb.10.50 -10.95
No. 18 lb.23.60 -24.00
No. 19 lb.15.00 -15.45
No. 21 lb. 3.90 - 4.35
No. 22 lb.10.50 -10.95
No. 28 lb.24.15 -24.65
No. 33 lb.17.00 -17.45
Violet, D&C, No. 2 lb.15.65 -16.10
Yellow, D&C, No. 7 lb.10.50 -10.95
No. 8 lb.10.50 -10.95
No. 10 lb.13.05 -13.50
No. 11 lb.13.05 -13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb.15.65 -16.10
Green, Ext., D&C, No. 1 lb.15.65 -16.10
Red, Ext., D&C, No. 1 lb.13.05 -13.50
Yellow, Ext, D&C, No. 1 lb.10.50 -10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN lb. 1.79 - —
13390 Fast blue SR lb. 1.43 - —
14025 Yellow 2G lb. 1.26 - —
14030 Orange R, extra, conc. lb. 1.64 - —
14645 Chrome black T lb. .77 - —
14720 Rubine XX, conc. lb. 1.59 - —
15510 Orange Y, extra conc. lb. .83 - —
15575 Orange RR lb. .99 - —
15620 Fast Red A, conc lb. 1.61 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.26 - —
16230 Fast light, orange 2G lb. 1.39 - —
17590 Brown PG lb. 3.00 - —
18050 Phloxine 2G lb. 1.05 - —
18055 Fuchsine 6B lb. 1.55 - —
18965 Fast yellow 2G lb. 2.32 - —
19140 Yellow XX lb. 2.48 - —
19555 Yellow NN, conc. lb. 3.67 - —
20170 Brown Y lb. 1.33 - —
20470 Blue black, extra, conc. lb. 1.44 - —
21010 Brown, RX, conc. lb. 1.35 - —
22240 Scarlet B lb. 2.81 - —
22310 Red FC lb. 1.57 - —
22311 Brown MCW lb. 1.47 - —
22610 Blue 2B, extra conc. lb. 1.53 - —
23500 Red, 4BX, conc. lb. 1.80 - —
24410 Sky blue FF, extra, conc. lb. 1.95 - —
24895 Brilliant yellow, conc. lb. 3.27 - —
26360 Navy blue 3R, conc. lb. 1.84 - —
26695 Black F, conc. lb. 2.30 - —
26900 Milling Red 3R, conc lb. 2.24 - —
27075 Neutral black 2B, conc. lb. 2.75 - —
27720 Gray L lb. 2.18 - —
29185 Fast scarlet 4BNC lb. 2.23 - —
30015 Diazo black VJ conc. lb. 2.48 - —
30045 Yellow brown K, extra lb. 1.26 - —
30235 Black EB, 200% lb. 1.33 - —
30295 Green BY, conc. lb. 1.07 - —
35660 Brown B lb. 2.89 - —
37565 Naphthol SWF lb. 1.85 - —
40000 Yellow 2G lb. 1.44 - —
41000 Yellow OX lb. 2.45 - —
42000 Green V, crystals lb. 2.73 - —
42040 Brilliant green G crystals lb. 3.62 - —
42090 Blue EG lb. 1.85 - —
42100 Milling green 6B, conc. lb. 4.78 - —
42640 Violet 4BXN lb. 2.43 - —
43830 Brilliant blue, BBG lb. 2.44 - —
44045 Blue B, extra conc. lb. 3.61 - —
45170 Red BX lb. 4.76 - —
50415 Nigrosine SSJ lb. 1.03 - —
52015 Blue GXX lb. 2.33 - —
58005 Alizarin red SC lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.50 - —
61570 Alizarin green CG, extra lb. 3.81 - —
63010 Alizarin blue SAPG lb. 3.90 - —
63615 Alizarin blue black B lb. 3.26 - —
69825 Blue BLFD double paste lb. 2.82 - —
70800 Brown BR single paste lb. 2.03 - —

Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.
12140 Oil scarlet BL lb. 1.87 - —
12055 Oil orange 7078 V lb. 1.38 - —
26120 Oil red N 1700 lb. 1.94 - —
42535B Methyl violet base lb. 1.88 - —
44045B Victoria blue base lb. 4.06 - —
50415B Oil black 8603 lb. .80 - —
61565 Alizarin cyanine green base, lb. 6.13 - —
Spirit black RB lb. 3.89 - —
Spirit brown GN lb. 5.30 - —
Spirit orange R conc. lb. 5.87 - —
Spirit red B conc lb. 6.41 - —
Pr. 517 Spirit yellow 2R conc. lb. 4.62 - —
Pr. 554 Spirit blue THN lb. 5.06 - —

E

Echinacea root, bls. lb. 1.25 - —
Elm bark, grinding, bls. lb. .30 - .32
Powd., bbls., bxs. lb. .50 - .55
Select, bundles lb. .75 - —
Emetine hydrochloride, USP, bots. oz.48.40 - —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd lb. 2.70 - —
Eosin red toner, bbls., works lb. 1.95 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .98 - 1.00
hydrous, bots., 100-oz. lots, oz. .92 - —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works oz. .72 - —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works oz. .73 - —
USP, powd., dms., 100-oz., same basis oz. .73 - —
Epichlorohydrin, dms., c.l., dlvd lb. .29½- —
dms., l.c.l., dlvd. lb. .31 - —
tanks, dlvd. lb. .27 - —
l-Epinephrine base, syn., USP, bots., 100 gram lots gram. .58 - —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. lb.11.00 - —
Ergot, NF, dms., tin-lined lb. 1.00 - 1.25
Eserine salicylate, bots. oz.44.00 - —
Eserine sulfate, bots. oz.86.00 - —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .18½- —
Wood-rosin type, dms., c.l., same basis lb. .13½- —

Ether (see specific product).
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
95-98%, dms., c.l., dlvd. lb. .15¼- —
dms., l.c.l., dlvd. lb. .16¾- —
tanks, dlvd. lb. .12¾- —
Ethyl acetate, nat., ferment, 99%, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
syn., 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd lb. .15¼- —
dms., l.c.l., dlvd. lb. .16¾- —
tanks, dlvd lb. .12¾- —
99%, dms., c.l., dlvd. lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks dlvd. lb. .13 - —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½- —
dms., l.c.l., dlvd. lb. .60 - —
tanks, dlvd. lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
dms., l.t.l., dlvd. lb. .37 - —
tanks, dlvd lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies gal.20.63 - —
dms., l.c.l., same basis gal.20.68 -20.74

Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies gal.21.75 - —
dms., l.c.l., same basis gal.21.80 -21.86
tanks, same basis gal.21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. 17½- —
Ethyl benzoate, bots. lb. .75 - 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E lb. .43 - —
dms., l.c.l., frt. alld. E lb. .45 - —
tanks, frt. alld. E lb. .41 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., l.t.l. works lb. .36¾- —
tanks, works lb. .34 - —
Ethyl butyrate dms., works lb. .85 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld. E lb. .75 - —
Vis 10, 20, 50, 100, 150 cps., bgs., 5,000-lb lots or more, frt. alld. E lb. .68 - —
bgs., smaller lots, frt. alld E. lb. .70 - —

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NEWARK, NEW JERSEY

Dimethyl Isophthalate

Trimethyl Borate — Trimethoxy Boroxine

T.C.P. — Tricresyl Phosphate

Cresyl Diphenyl Phosphate

D.D.T. — Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28% — 40%

D.D.V.P. — Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

Triphenyl Phosphate

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Ethyl chloride, tech., cyls., works, lb. .20 - .22
dms., works lb. .18 - .20
tanks, works lb. .10 - —
Ethyl cinnamate, cns. lb. 3.35 - 3.50
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E lb. .43½- —
dms., l.c.l., dlvd. E lb. .44½- —
tanks, dlvd. E. lb. .41½- —
Ethyl ether, absolute, ACS, dms lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns lb. 1.01 - —
½-lb. cns lb 1.09 - —
¼-lb. cns. lb. 1.21 - —
Indust., dms., c.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd. E. lb. .15 - —
tanks, dlvd E. lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., l.t.l., dlvd. E lb. .38½- —
tanks, dlvd. E. lb. .34½- —
2 Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms., c.l., dlvd. lb. .23¾- —
dms., l.c.l. dlvd lb. .25¼- —
tanks, dlvd. lb. .21¼- —
Ethyl iodide, chys., works lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb. .52 - —
dms., l.t.l., frt. equald lb. .52½- —
tanks, frt. equald lb. .50 - —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 - —
Ethyl oenanthate, dms lb. 1.05 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO_2, dms., c.l., dlvd lb. .44¼- —
dms., l.c.l., dlvd lb. .46 - —
tanks, dlvd lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works, lb. 1.04 - —
N-Ethyl-m-toluidine, tech., liq., tanl s. frt. alld lb. .83 - —
N-Ethyl-o-toluidide, bbls. lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-)
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld lb. .58 - —
tanks, frt. alld lb. .55 - —
Ethylbenzene, 99%, dms., c.l., t.l., frt. equald lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Ethylene, contract, refy. gate lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½- —
dms., l.c.l., frt. equald lb. .31½- —
tanks, frt. equald lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½- —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
dms., l.c.l., dlvd. E lb. .23½- —
tanks, dlvd. E lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E lb. .20½- —
tanks, dlvd. E lb. .17 - —
Ethylene glycol monomethyl etner, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E lb. .29¾- —
tanks, dlvd. E lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½- —
dms., l.c.l., dlvd. E lb. .24½- —
tanks, dlvd. E lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 - —
tanks, dlvd. E., 100% basis lb. .40 - —
lots and over lb. 6.75 - —
200-lb. lots and over lb. 7.00 - —
100-lb. lots and smaller lb. 7.30 - 7.40
Ethylvanillin, 100-lb. fib. dms., 500-lb. lb.
Eucalyptol, USP, cns., dms lb. .85 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .44 - .55
NF, rectified, 80-85%, dms. lb. .53 - .62
Eugenol, tech., dms lb. 1.45 - —
USP, dms. lb. 2.00 - —
Euphorbia herb, bls lb. .12 - .15

F

F salt, paste, tech. dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher.
Fennel oil, sweet, USP, cns lb. 1.95 - 2.25
Fennel seed, Argentine, bgs lb. .16 - —
French, light, bgs lb. .16 - —
Indian, light, bgs lb. .17 - —
Rumanian, bgs. lb. .14 - —
Yugoslav, light, bgs lb. .16½- —
Fenugreek seed, Moroccan, bgs. lb. .08 - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bbls., c.l., works, 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate, gran., dms lb. .86 - —
Ferric hypophosphite, NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. .89 - —
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs. lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .70 - —
Ferric resinate, 6¾% Fe., dms., ton lots, frt. alld lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton. 35.25 - —
bgs., l.c.l., works ton. 36.25 - 42.25
bulk, c.l., works ton. 33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29¼
Ferric-potassium oxalate, fine gran., dms. lb. .32½- .34¼
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29¼
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 - —
bgs., l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP, cryst., bbls., dms lb. .09½- .10
Fir balsam, Canada, bbls gal. 32.00 - 35.00
Oregon, bbls. gal. 3.40 - 4.64
Fir oil, Canada, cns lb. 1.75 - 2.50
Fish oil, refd., alkali, dms lb. .1250- .1300
Kettle-bodied, dms. lb. .1480- .1530
Light-pressed, dms. lb. .1100- .1150
tanks lb. .09½- —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms. 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 100.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton. 96.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram. .30 - .44
10% feed grade, fib. dms., 3 kilos or more kilo. 30.00 - 44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0695- —
tanks, dlvd. lb. .0430- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85%, cbys., c.l., works, lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls lb. .65 - .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .23¼- —
dms., l.c.l., frt. equald lb. .24¾- —
Fumaric acid in bags ½c. per lb. less.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E lb. .12 - —
tanks, dlvd. W lb. .13 - —
Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J. lb. .20½- —
dms., l.c.l., l.t.l., Newark, N. J. lb. .21½- —
dms., c.l., t.l., Memphis, Tenn. lb. .19 - —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .20 - —
tanks, Memphis, Tenn. lb. .175 - —
Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
dms., l.c.l., dlvd. lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF, VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld. lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd. lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsenium root, bls. lb. .30 - .35

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Anticipating time . . . boy or girl? One thing's for sure. The child's future will be more comfortable and healthy, thanks to your practical applications for Jefferson Ethanolamines. Surrounding this soon-to-be mother are cosmetics and toilet goods, wool blankets and baby clothing, rubber pants and gloves, and behind scenes . . . sweetened natural gas to cook food and dry clothes.

Versatile ethanolamines are hygroscopic, and miscible with water, most alcohols and polyols. There's hardly an industry where there isn't some profitable application for these multifunctional chemicals. For all your ethanolamine requirements — mono-, di-, or tri- (both regular and 99% grades), look to Jefferson for prompt shipments in any quantity . . . pioneer of ethanolamine shipments by barge. Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

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SURFONIC® Surface-Active Agents • Ethanolamines • Morpholine
N-Alkyl Morpholines • Polyethylene and Polypropylene Glycols
Piperazine • Piperazine Salts • Nonyl Phenol • Caustic Soda
HOUSTON • NEW YORK • CHICAGO • CLEVELAND • CHARLOTTE • LOS ANGELES

JEFFERSON CHEMICALS

Gentian root, bls.	lb.	.24	—
Grd., bbls., bxs.	lb.	.30	—
Powd., bbls., bxs.	lb.	.30	—
Geraniol, extra, cns., dms.	lb.	1.75	2.40
Soap grade, dms.	lb.	.90	1.75
Standard, cns., dms.	lb.	1.65	—
Synthetic, dms.	lb.	1.30	—
Geranium oil, Algerian, cns.	lb.	23.00	—
Bourbon, cns.	lb.	30.00	—
Geranium oil, Turkish (see Palmarosa oil).			
Geranyl acetate, cns.	lb.	1.90	2.70
Synthetic, dms.	lb.	1.45	—
Ginger oil, dist., bots.	lb.	11.50	14.00
Ginger oleoresin, NF, from African root, bots.	lb.	4.25	5.00
NF, from Jamaican root, bots.	lb.	7.75	—
Ginger root, Cochin, bgs.	lb.	.23	—
Jamaican, No. 3, bgs.	lb.	.24	—
Nigerian, split, bgs.	lb.	.14½	—
Sierra Leone, bgs.	lb.	.25	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works	lb.	.20	—
dms., l.c.l., f.o.b. works	lb.	.21	—
tanks, f.o.b. works	lb.	.17	—
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd.	lb.	.16	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
191 jellygrams, bgs., c.l., same basis	lb.	.19½	—
222 jellygrams, bgs., c.l., same basis	lb.	.21	—
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis	lb.	.16	—
86 jellygrams, bgs., c.l., same basis	lb.	.16	—
115 jellygrams, bgs., c.l., same basis	lb.	.16½	—
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis	lb.	.17½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
180 jellygrams, bgs., c.l., same basis	lb.	.19½	—
200 jellygrams, bgs., c.l., same basis	lb.	.20½	—
Bone glue, l.c.l., prices 2c. higher.			
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd.	lb.	.18	—
95-149, bgs., c.l., dlvd.	lb.	.19	—
122-149, bgs., c.l., dlvd.	lb.	.20½	—
150-177, bgs., c.l., dlvd.	lb.	.22½	—
178-206, bgs., c.l., dlvd.	lb.	.25	—
Glue, hide, 207-236, bgs., c.l., dlvd	lb.	.28	—
237-266, bgs., c.l., dlvd.	lb.	.30½	—
267-298, bgs., c.l., dlvd.	lb.	.32½	—
299-330, bgs., c.l., dlvd.	lb.	.34½	—
331-362, bgs., c.l., dlvd.	lb.	.36½	—
363-394, bgs., c.l., dlvd.	lb.	.38	—
395-427, bgs., c.l., dlvd.	lb.	.40	—
428-460, bgs., c.l., dlvd.	lb.	.42	—
461-494, bgs., c.l., dlvd.	lb.	.44	—
495-529, bgs., c.l., dlvd.	lb.	.46	—
Hide glue, l.c.l., prices 2c. higher.			
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld.	lb.	1.80	—
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88	—
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00	300.00
Bots., 50-kilo lots	kilo.	100.00	—
Bots., 500-kilo lots	kilo.	75.00	—
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd.	lb.	.21¼	—
nat., crude, soaplye, 80%, tanks, dlvd.	lb.	.19¼	—
nat., refd., USP, CP, 99%, dms., c.l., dlvd.	lb.	.30⅞	—
dms., l.c.l., dlvd.	lb.	.31⅝	—
tanks, dlvd.	lb.	.29⅛	—
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd.	lb.	.30	—
dms., l.c.l., dlvd.	lb.	.30¾	—
tanks, dlvd.	lb.	.28¼	—
nat., high gravity, dms., c.l., dlvd.	lb.	.30¾	—
dms., l.c.l., dlvd.	lb.	.31½	—
tanks, dlvd.	lb.	.29	—
Glycerine, dom., syn., dms., c.l., dlvd.	lb.	.31	—
dms., l.c.l., dlvd.	lb.	.31¾	—
tanks, dlvd.	lb.	.29¼	—
Imp., nat., crude, soaplye, 80%, c.i.f.	lb.	.18½	—
Glycine (see Aminoacetic acid).			
Glycerol (see Glycerine).			
Glycolic acid (see Hydroxyacetic acid).			
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40	—
dms., l.c.l., same basis	lb.	.42	—
tanks, same basis	lb.	.39	—
Glyoxal, 30%, dms., c.l., works	lb.	.20½	—
dms., l.c.l., works	lb.	.21¼	—
tanks, works	lb.	.18	—
Golden seal root, NF, tested, bls.	lb.	2.75	3.25
Gramicidin, 1 to 5 kilos, f.o.b. works,	gram.	4.70	—
Grapefruit oil, dms.	lb.	3.50	—
Graphite, amorp., powd., bgs., fib. dms., ex whse	lb.	.06	.09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse	lb.	.19	.21½
90-92%, powd., bgs., fib. dms., ex whse	lb.	.21	.24½
95-97%, powd., bgs., fib. dms., ex whse	lb.	.29	.31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
No. 2, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
Grease, white, choice all hog, tanks, dlvd.	lb.	.07	—
Yellow, tanks, dlvd.	lb.	.05¼	.05¼
Grease oil, No. 1, dms., c.l.	lb.	.13¾	—
dms., l.c.l.	lb.	.14¾	.15¾
Extra winter, strained, dms., c.l.	lb.	.16¼	—
dms., l.c.l.	lb.	.17¼	.18¼
Prime, burning, dms., c.l.	lb.	.17¾	—
dms., l.c.l.	lb.	.18¾	.19¾

GREEN PIGMENTS

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls.	lb.	.40	—
Guaiacol, NF, cryst., dms., tins	lb.	2.10	2.15
NF, liq., cbys., dms.	lb.	2.30	2.40
Guaiacol carbonate, NF VII, dms	lb.	3.40	3.45
Guaiacwood oil, cns.	lb.	.65	.80
Guar gum, food grade, bgs., c.l.	lb.	.38	—
bgs., 5,000 lbs or more	lb.	.39	—
Indust., bgs., c.l.	lb.	.32	—
Tech grade, bgs.	lb.	.30	.33

GUMS

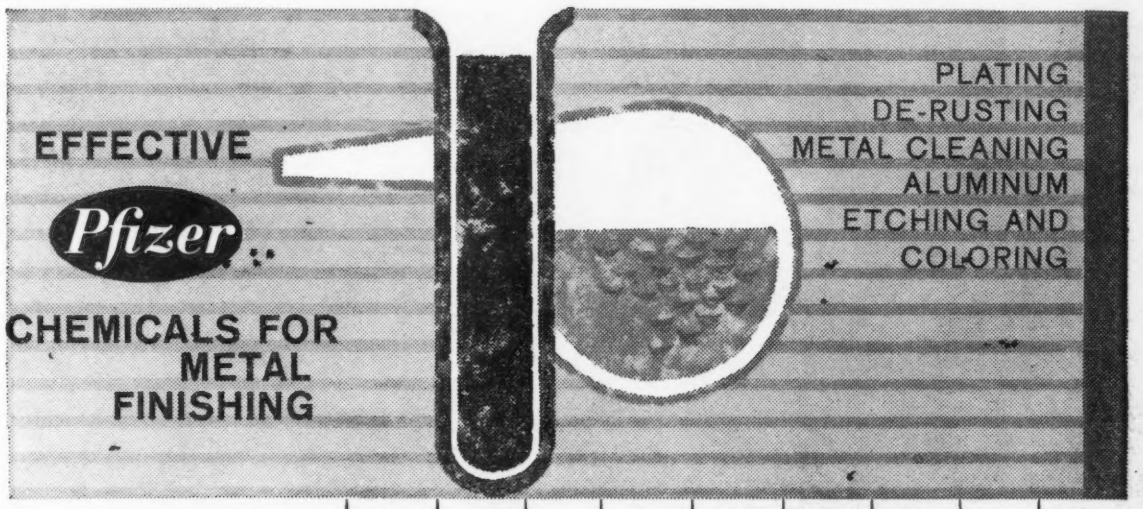
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

H acid, dry, bbls., c.l., frt. alld., 100% basis	lb.	.90	—
bbls., l.c.l., same basis	lb.	.95	—
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies	lb.	2.45	—
Hansa G yellow, pigment, bbls.	lb.	2.20	—
Hawthorn berries, bgs.	lb.	.18	.20
Heliotropin, 100-lb. lots, dms.	lb.	2.60	3.40
Hellebore root, dom., green, bls.	lb.	.70	.75
Helonias root, bls.	lb.	1.50	—
Hemlock oil, cns.	lb.	2.55	3.00
Henbane leaves, bls.	lb.	.35	.40
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis	lb.	.96	—
Heptane, indust., tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.1625	—
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works	lb.	8.95	—
Hesperidin methylchalcone, bots., 50-lb. lots, works	lb.	22.50	—
bots., 5-lb. lots, works	lb.	23.00	—
bots., 1-lb. lots, works	lb.	23.50	—
Hexachlorophene, dms., 1,100 lbs. or more	lb.	1.84	—
dms., to 1,100 lbs.	lb.	1.94	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City	lb.	.233	—
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis	lb.	.243	—
bgs., smaller lots, same basis	lb.	.253	—
fib. dms., 1,000-lb. lots or more, same basis	lb.	.250	—
fib. dms., smaller lots, same basis	lb.	.253	—
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	.42½	—
bgs., smaller lots, same basis	lb.	.43½	.48½
Hexane, industrial, tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.16	—
l-Hexanol, dms., c.l., works	lb.	.35	—
dms., l.c.l., works	lb.	.35¾	—
tanks, works	lb.	.33	—
Hexyl cinnamic aldehyde, dms.	lb.	4.00	7.50
n-Hexyl methacrylate, dms., c.l., works	lb.	.75½	—
dms., l.c.l., works	lb.	.76	—
Hexyl salicylate, dms.	lb.	1.75	—
Hexylene glycol, dms., c.l., dlvd.	lb.	.17½	—
dms., l.c.l., dlvd.	lb.	.19	—
tanks, dlvd.	lb.	.15	—
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd.	lb.	14.00	—
dms., smaller lots, dlvd.	lb.	14.50	—
Homatropine hydrobromide, USP, bots.	oz.	3.25	—
Homatropine methylbromide, USP, bots.	oz.	3.25	—
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago	unit-ton.	6.75	—
Horehound herb, bls.	lb.	.18	.20
Hydrastis (see Goldenseal).			
Hydrazine hydrate, 85% ret. dms., works	lb.	1.35	1.55
100%, ret. dms., works	lb.	1.60	1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works	lb.	2.92	—
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1	lb.	.29¼	—
dms., l.c.l., dlvd. zone 1	lb.	.29¾	.30¼
tanks, dlvd. zone 1	lb.	.27¼	—

Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

Hydrobromic acid, medicinal, 48%, cbys., frt. equald.	lb.	.48	.56
Hydrochloric acid, anhyd. (see Hydrogen chloride).			
Hydrochloric acid, 18°, cbys., c.l., works	100 lbs.	2.50	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	2.90	3.05
tanks, works, frt. equald.	ton.	28.00	—
20°, cbys., c.l., works	100 lbs.	2.75	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.15	—
tanks, works, frt. equald.	ton.	30.00	—
Hydrochloric acid, 22°, cbys., c.l., works	100 lbs.	3.25	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.65	—
tanks, works, frt. equald.	ton.	35.00	—
Hydrochloric acid, CP, USP, consumers, cbys., extra, c.l., works	lb.	.15¾	—
cbys., l.c.l., same basis	lb.	.17¼	.17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis.	lb.	.20¾	—
Hydrocortisone acetate, bulk, bots., kilo lots or more	gram.	1.10	1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more	gram.	1.10	1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works	pt.	.70	—
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).			



	Cleaning	Polishing	Pickling	Electroplating	Electropolishing	Non-Electrolytic Depositions	Electrolytic Oxidation	Etching	Gold Coloring of Aluminum
Citric Acid	✓	✓	✓	✓	✓	✓	✓	✓	
Sodium Citrate	✓	✓		✓		✓			
Ammonium Citrate	✓	✓	✓	✓					
Gluconic Acid	✓	✓	✓	✓				✓	
Glucono Delta Lactone	✓	✓	✓	✓				✓	
Sodium Gluconate	✓	✓		✓				✓	
Oxalic Acid	✓	✓	✓	✓	✓		✓	✓	
Ammonium Oxalate	✓	✓		✓					
Ferric Ammonium Oxalate									✓
Tartaric Acid	✓		✓	✓				✓	
Tartar Emetic				✓					
Rochelle Salt			✓	✓					
Cream of Tartar	✓			✓					

Citric Acid...
Nontoxic, mild, yet chemically active against scale and tarnish. Used extensively in the formulation of general metal cleaners and polishes, particularly household products.

Sodium Citrate...
A preferred ingredient in electroless nickel baths, resulting in a brighter plate. Also finds wide use in electroplating processes.

Ammonium Citrate...
Especially useful for the removal of rust in near neutral solutions. Extremely mild and safe to handle.

Gluconic Acid...
An excellent sequesterant in alkaline derusting solutions; provides rust-free, clean surface ready for further treatment. Also highly effective in aluminum etching and paint stripping compounds.

Oxalic Acid...
The most effective chemical for use in automobile radiator cleaners. Also finds wide use in electropolishing and as an ingredient in general metal cleaners.

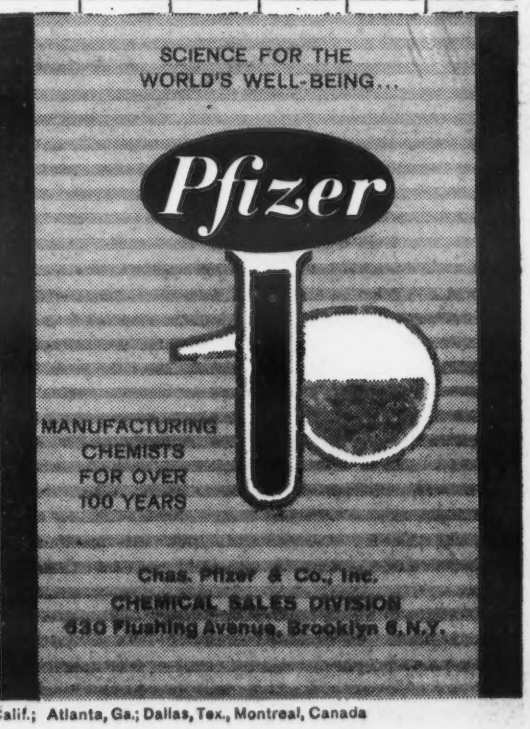
Ferric Ammonium Oxalate...
Used extensively in the production of light-fast gold colored aluminum.

Tartaric Acid...
Excellent complexing agent for copper in electroplating.

Tartar Emetic...
Used in electrolytic baths for deposition of silver and antimony alloys on brass, copper and steel surfaces.

Rochelle Salt...
Increases efficiency and yields finer-grain deposit in alkaline copper plating.

Cream of Tartar...
An excellent additive for brass cleaning compounds. Its crystalline structure acts as an effective abrasive in paste polishes. Chemically active against tarnish.


SCIENCE FOR THE WORLD'S WELL-BEING...
Pfizer
MANUFACTURING CHEMISTS FOR OVER 100 YEARS
Chas. Pfizer & Co., Inc.
CHEMICAL SALES DIVISION
630 Flushing Avenue, Brooklyn 6, N.Y.

Branch offices: Chicago, Ill.; Clifton, N. J.; San Francisco, Calif.; Atlanta, Ga.; Dallas, Tex., Montreal, Canada

Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd. 100 lbs. 19.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs. 20.75 - —
20-gal. dms., c.l., t.l., dlvd. 100 lbs. 21.00 - —
20-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs. 22.50 - —
tanks, works frt. equald. 100 lbs. 13.40 - —

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.

Hydrofluosilicic acid, dms., works, 30% basis lb. .06 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98%, tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls., dlvd W lb. .39 - —
tanks, works lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms., l.c.l., dlvd. lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd. lb. 2.59 - —
dms., l.t.l., dlvd. lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago lb. .11 - —
tanks, Belle, W. Va. lb. .073 - —
Hydroxycitronellol, cns. lb. 4.85 - 5.75
Hydroxyethyl cellulose, add grades, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .84 - —
fib. dms., 2,000 to 19,999-lb. lots, same basis lb. .89 - —
fib. dms., 100 to 1,999-lb. lots, same basis lb. .93 - —
fib dms., smaller lots, same basis lb. 1.03 - —
Hyoscine salts (see Scopolamine).
Hyoscyamine hydrobromide, bots. oz. 7.00 - —
Hyoscyamine sulfate, bots. oz. 7.00 - —
Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works lb. 1.95 - —
NF, 50%, 10-cbys., same basis lb. 1.35 - —

I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.).
Indole, CP, bots. lb. 13.75 - 15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd. lb. 4.50 - —
Inositol, 50-lb. lbs., less than 1,000 lb., dlvd. lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. .95 - —
Resub., USP, dms., f.o.b. works lb. 2.00 - 2.02
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works lb. 4.90 - —
dms., 100-lbs., same basis lb. 5.05 - —
a-Ionone, cns. lb. 4.60 - 5.75
b-Ionone, cns. lb. 4.15 - 6.15
Ipecac root, whole, bgs. lb. 8.00 - 8.50
Powd., bbls., bxs. lb. 9.50 - 10.00
Irish moss, bleached, prime, bls lb. .20 - .23
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls., l.c.l., ton lots, same basis. lb. .58 - —
bbls., smaller lots, same basis. lb. .59 - —
Dom., reg., bbls., c.l., dlvd. E lb. .52 - —
Iron blue, alkali-resisting, dom., reg., bbls. l.c.l., ton lots, same basis lb. .53 - —
bbls., l.c.l., smaller lots, same basis lb. .54 - —
Imp., British, reg., bbls., c.l., dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .06¼- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse, New York lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¼- —
Peruvian type, bgs., l.c.l. lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
Other shades, same basis lb. .12 - —
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Isoborneol, cns. lb. 1.44 - 1.80
Isobornyl acetate, cns. lb. .46 - .56
Isobornyl formate, dms. lb. 1.20 - —
Isobornyl proprionate, dms. lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns lb. .35 - —
Isobutyl acetate, solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99%, tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28¼- —
Tech., dms., c.l., dlvd. lb. .22 - —
dms., l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .19½- —
Isobutyronitrile, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., same basis lb. .57 - —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., l.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 - —
Isoeugenol, cns. lb. 3.40 - 4.25
Isoniazid, powd., bulk, kilo or more kilo. 18.00 - —
Isonicotinic acid, 100-lb. fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. lb. .25 - —
tanks, dlvd. E. lb. .21 - —
Isopentane, com'l. grade, tanks, f.o.b. Tex. refy gal. .16½- —
Isophorone, dms., c.l., works lb. .24½- —
dms., l.c.l., works lb. .25¼- —
tanks, works lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd gal. .60 - —
dms., l.c.l., dlvd. gal. .70 - —
tanks, dlvd. gal. .44 - —
anhyd., c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd. gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd. lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 - —
450-lb. fib. dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 - 1.25
Itaconic acid, refd., bgs., c.l., f.o.b. works lb. .53½- —
bgs., l.c.l., same basis lb. .54½- —
Tech., bgs., c.l., same basis lb. .38½- —
bgs., l.c.l., same basis lb. .39½- —

J

J acid, paste, bbls., works, 100% basis lb 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls. lb. .60 - —
NF, powd., bbls., bxs. lb. .70 - .75
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs. lb. .16 - .17
Juniper berry oil, NF, bots. lb. 2.90 - 3.75
Twice rectified, bots. lb. 3.25 - —
Juniper tar oil, NF, dms. lb. .42 - .60
Juniper wood oil, tech., cns. lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. lb. .10 - .12
NF, colloidal, 50-lb. bgs. lb. .15½- .17½
Karaya gum, No. 1, NF, powd., bls lb. .48 - .50
No. 2, powd., bbls. lb. .43 - .45
No. 3, powd., bbls. lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .13 - .15

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —

HERE COMES A
$560 SAVING FOR
A CHICAGO LACQUER
MANUFACTURER
He switched from n-butyl acetate to Eastman ISOBUTYL ACETATE
and is saving 14¢ per gallon. That's $560 for a 4,000-gallon tank truck.
All over the country, cost-conscious lacquer manufacturers are turning to Eastman Isobutyl Acetate for their medium-boiling solvent requirements. It can be used interchangeably with n-butyl acetate in most lacquer formulations. Its substitution in nitrocellulose lacquers, for example, produces virtually no change in either film properties or handling characteristics.
Eastman Isobutyl Acetate can be substituted for methyl isobutyl ketone, too, at a savings of 5¢ per gallon.
Eastman Isobutyl Acetate can frequently replace combinations of n-butyl acetate with sec-butyl acetate or n-propyl acetate at a lower cost per gallon.
Call your nearest representative and ask him to show you how you can save solvent money by switching to Eastman Isobutyl Acetate.
Eastman
CHEMICAL PRODUCTS, INC.
Subsidiary of Eastman Kodak Company
KINGSPORT, TENNESSEE
SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Detroit; Framingham, Massachusetts; Greensboro, North Carolina; Houston; New York City; Philadelphia; St. Louis.
West Coast: Wilson & Geo. Meyer & Company, San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald..lb. .3335- —
bbls., dms., 20 or more, frt. equald lb. .3385- —
bbls., dms., 5 to 19, frt. equald. lb. .3435- —
bbls., dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works ..... lb. .2840- —
bbls., 1 to 4, works ..... lb. .2890- —
80%, bbls., c.l., works..... lb. .4625- —
bbls., 5 to 19, works..... lb. .4725- —
bbls., 1 to 4, works ..... lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs.12.45 - —
bbls., l.c.l., works.....100 lbs.12 85 - —
USP, 85%, cbys. ..... lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment, grade, bgs., c.l., works lb. .03½- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c to 1c. lower
Lactose, USP, spray dried, bgs., t.l., frt. equald. lb. .18½- —
bgs., l.t.l., frt. equald lb. .19 - .19¾
Lady's slipper root, bls lb. 3.00 - 3.50
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 - .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 - .30
USP, hydrous, 400-lb. dms., works. lb 24 - —
Lard, cash, dms., Chicago .....lb.11.70 - —
Lard oil (see Grease oil).
Larkspur seed, bgs. .....lb. .55 - —
Laurel leaf oil, dms., cns.....lb. 9.75 - 12.50
Laurent's acid, bbls ..... lb. 70 —
Lauric acid, pure, dms. .....lb. 33¾- .36¼
tanks .....lb. .32¾- —
Lauryl alcohol, bots ..... lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms., l.t.l., works ..... lb. .65 - —
Lavandin oil, 22-24%, dms. ... lb. 1.10 - 1.50
Abrial, dms. ..... lb. 1.00 - 1.50
Lavender flowers, medium, bls lb. .55 - .60
Ord., bls. ..... lb. .20 - .25
Select., bls. ..... lb. .90 - 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb. 1.85 - 4.00
40-42% ester, cns ..... lb. 5.00 - 7.75
Spike, Spanish, cns. ..... lb. 2.20 - 3.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .31½- —
White, cryst., bbls. ..... lb. .25½- —
gran., bbls. ..... lb. .26½- —
powd., bbls ..... lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis ..... lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. ..... lb. .52 - —
Lead iodide, NF, V jars ..... lb. 3.82 - —
Lead linoleate fused, 26% Pb, dms. lb. .38 - —
Lead metal prime, pigs, New York. lb. .12 - —
St. Louis ..... lb. .1180- —
Lead monosilicate, bgs., c.l., works, frt. equald. lb. .1385- —
bgs., l.c.l., same basis ..... lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., divd. lb. .19½- —
24% Pb., dms., divd. ..... lb. .24¼- —
Solid, 37% Pb., dms., divd. .. lb. .31¾- —
Lead nitrate, bbls. ..... lb. .24¼- .26¾
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works, lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1475- —
bbls., l.c.l., same basis.lb. .1575- —
97% Pb_3O_4, bbls., c.l., same basis. lb. .1495- —
bbls., l.c.l., same basis. lb. .1595- —
98% Pb_3O_4, bbls., c.l., same basis. lb. .1510- —
bbls., l.c.l., same basis. lb. .1610- —
Lead resinate precip. 23% Pb, dms., ton lots, divd lb. .43¾- —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld. lb. .20 - —
bgs., l.c.l., same basis..... lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms. lb. .17¼- —
24% Pb, dms. ..... lb. .26¾- —
Solid, 30% Pb, dms. ..... lb. .23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis.... lb. .19 - —
basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16½- —
bgs., l.c.l., same basis..... lb. .17½- —
basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .17 - —
bgs., l.c.l., same basis ..... lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 100-lb. package, works lb. 6.45 - —
Lemon oil, USP, Calif., cns., dms. lb. 1.25 - 1.50
Messina, cns. .....lb. 3.25 - 4.00
Lemongrass oil, cns., dms.....lb. 2.00 - 2.20
dl-Leucine, dms., works.....lb.12.25 -15.00
Licorice root, gran., bls. .....lb. .13 - —
Powd., bls. .....lb. .15 - .16
Whole, bls. .....lb. .09 - .10
Lignaloe wood oil, Mexican, cns. lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).
Lilac oil .....lb. 1,500.00

Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton.14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton.17.25 - —
spray, bgs., c.l., same basis ton.18.25 - —
For New York delivery, add $6.29 freight charge
Lime oil, dist., Mexican, cns. ....lb. 5.85 - —
West Indian, cns. .....lb. 5.80 - —
Expressed, West Indian, cns. lb. 7.75 - 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100%, dms., works....lb. 2.40 - 2.75
Linalyl acetate, ex bois de rose, 90-92%, dms. lb. 2.65 - 4.50
96-98% dms. lb. 3.25 - —
Syn., 98-100%, dms., works...lb. 2.75 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb. dms., 5,000 lbs., divd. lb. 2.13 - —
100-lb. dms., 5,000-lbs., divd.lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., divd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs., divd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. ..... lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, mills ton.60.50 - —
Extracted, 34% bulk, same basis. ton.52.50 - —
Linseed oil, raw, dms., c.l., New York..lb. .1630- —
dms., l.c.l., New York .....lb. .1720- .1770
tanks, f.o.b. Minneapolis....lb. .1270- —
tanks, New York .....lb. .1331- —
tankwagon, New York .....lb. .1431- —
Boiled linseed oil, .006c. per lb higher.

Linseed oil, acid, dist., dms....lb. .2005- —
Water-white, dms. .....lb. .2305- —
Litharge, coml., powd., bbls., c.l., works, frt. equald..lb. .1425- —
bbls., l.c.l., same basis.....lb. .1525- —
Lithium aluminum hydride, lump, dms., works..lb.33.00 -39.00
Lithium benzoate, dms. .....lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald..lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd..lb. 1.29½- —
dms., ton lots to t.l., dlvd..lb. 1.30 - 1.30½
Tech., dms., c.l., frt. alld.....lb. .67 - —
dms., t.l., same basis.....lb. .73 - —
dms., ton lots, same basis....lb. .76 - —
dms., smaller lots, f.o.b., plant. lb. .81 - —
Lithium chloride, CP, anhyd., dms., ton lots .lb. 1.23½- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld..lb. .87 - —
dms., l.c.l., same basis.....lb. .88 - .92
Lithium citrate, NF, dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd..lb. 2.15 - —
bbls., ton lots and more, dlvd..lb. 2.18½- —
bbls., less ton lots, dlvd. .....lb. 2.23½- —
Lithium hydride, powd., dms., 500-lbs. lots or more, works. lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld..lb. .72 - —
dms., l.c.l., frt. alld. .....lb. .73 - —

Lithium manganite, dms., works..lb. .93 - 1.05
Lithium nitrate, tech., dms., 100-lb. lots..lb. 1.15 - 1.25
Lithium salicylate, dms. .....lb. 1.60 - 1.70
Lithium silicate, dms., works....lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works. lb. .47½- —
dms., ton lots, works .....lb. .48½- —
dms., less-ton lots, works .....lb. .53½- —
Lithium sulfate, dms., 100-lb. lots. lb. 1.15 - 1.25
Lithium titanate, dms., works....lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. .98 - —
Lithol-rubine red toner, pure, bbls., works..lb. 1.50 - —
Resinated, bbls., works.....lb. 1.47 - —
Lithopone, ord., bgs., c.l., divd. E. lb. .08⅜- —
bgs., l.c.l., divd. E .....lb. .09⅛- —
Titanated (high-strength), bgs., c.l., divd..lb. .11 - —
bgs., l.c.l., divd. .....lb. .12 - —
Lobelia herb, bls. .....lb. .55 - —
Lobeline sulfate, bots., 50-oz. lots, works .oz.30.00 - —
Locust bean gum, powd., bgs. ....lb. .35 - .40
Lycopodium, cs. .....lb. 3.25 - 3.50
1-Lysine monohydrochloride, 25-lb. dms. .lb. 4.95 - —

M

Mace, Siauw, No. 1, bls. .....lb. 1.90 - —
No. 2, whole, bls. .....lb. 1.65 - —
siftings, bls. .....lb. 1.60 - —

ONE LABEL — *First Grade Only*
ONE PRICE — *That Saves You Money*
. . . and Perfect Performance for *Every* Purpose!

M. C. P.
Pure
Unadulterated
California
LEMON OIL
U. S. P.

An *Exclusively First Grade Lemon Oil* . . . Cold Pressed in California . . . and *Packed by the Producer* to Assure Highest Quality

For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C.P. LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one label* and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C.P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

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MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processors of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Mace Oil—Methoxychlor

Mace oil, dist., cns., dms.....lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., ctns., frt. equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald..lb. .28 - —
bgs., l.c.l., frt. equald..lb. .28¾- —

Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points

Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev..ton.39.50 • —
91%, bgs., c.l., same basis, ton.49.50 • —
95%, bgs., c.l. same basis, ton. 59.00 • —
USP, light, bgs. .....lb. .36½- .37½
USP, heavy, bgs. .....lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald..ton.86.25 • —
Chemical grade, deadburnt, standard grain, bulk., c.l., Chawelah, Wash. ..ton.46.00 • —
Magnesium bromide, cs., jars..lb. .95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald..lb. .11 • —
bgs., t.l., frt. equald.....lb. .11½- —
bgs., l.c.l., frt. equald.....lb. .13½- .14

Magnesium carbonate, USP, bgs., c.l., frt. equald..lb. .13½- —
bgs., t.l., frt. equald.....lb. .14 - —
bgs., l.c.l., frt. equald.....lb. .15 - 16

• Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works..lb. .12¾- —
dms., l.c.l., works.....lb. .14 - .15
Hydrous, 99%, flake, bgs., c.l., works..ton.55.00 - —
bgs., l.c.l., works.....ton.65.00 -80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E..lb. 1.42 • —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works..lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld..lb. .22½- —
dms., l.t.l., frt. alld. .....lb. .23½- —
tanks, frt. alld. .....lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works..lb .36 • —
pigs, 10,000-lb. lots or more, works..lb. .35¼- —
sticks, cs., works, frt. alld on carlots..lb. .59 • —
Magnesium nitrate, cryst., dms., works..lb. .29 • —
Magnesium oxide (see Magnesia, calcined).

Magnesium phosphate, tribasic, NF, bbls..lb. .75 • —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works..lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works..100 lbs. 2.15 • —
bgs, l.c.l., works.....100 lbs. 2.90 • 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 • —
bgs., l.c.l., 5,000 lbs., 1 withdrawal..100 lbs. 3.10 • —
bgs., smaller lots.....100 lbs. 3.35 • —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots..lb. .38 • —
fib. dms., 1,000-lb. lots.....lb. .40 • —
fib. dms., 100-lb. lots.....lb. .45 • —

Bulky and super grades of magnesium trisicilate 7c. per. lb. higher.

Malachite green, straight, PTA, bbls., works..lb. 5.30 • —
Malathion, dms., c.l., works.....lb. .89 • —
dms., l.c.l., works.....lb. .92 - 1.01
Maleic acid, cryst., powd., dms..lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald..lb. .24 • —
dms., l.c.l., frt. equald.....lb. .25½- —
tanks, frt. equald .....lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms.....lb. .50 • —
Mandelic acid, NF, dms., 1,000-lb. lots..lb. 2.35 • —
dms., smaller lots.....lb. 2.40 • 2.50
Mandrake root, bis.....lb. .40 • —
Manganese acetate, dms., dlvd....lb. .35 • —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works..lb. .11 • .16

Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾- —
smaller lots, works.....lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works..ton.148.00 • —
40,000 to 99,999-lb. lots, paper bgs., same basis.....ton.144.50 • —
40,000 to 99,999-lb. lots, dms. same basis..ton.152.50 • —

Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.

Manganese gluconate, dms.....lb. 1.84 • —
Manganese hydrate, dms., dlvd..lb. .35 • —
Manganese hypophosphite, NF, dms. lb. 3.52 • —
Manganese linoleate, liq., 4.35% Mn, dms..lb. .35¾- —
Solid, precip., 8.2% Mn, bbls..lb. .41¼- —
Manganese metal, electrolytic, dms., c.l., dlvd. E. .....lb. .34 • —
dms., ton lots, dlvd. E. .....lb. .36 • —
dms., smaller lots, dlvd. E..lb. .38 • —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld..lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms..lb. .29¼- —
Precip., 6½-7% Mn, dms.....lb. .37 • —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S. E..ton.86.50 • —
bgs., l.c.l., dlvd. S. E..ton.93.50 • —
Manganese tallate, 6%, dms.....lb. .26½- —
Manila copal gum, C, bgs. .....lb. .35 • .39
DBB, bgs. .....lb. .25 • .28
DK, bgs. .....lb. No stocks.
DK, dust, bgs. .....lb. .14 Nom.
MA, soft, bgs. .....lb. .20 • .24
WS, bgs. .....lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works..lb. .60 • —
fib. dms., to ton lots, works..lb. .62 • —
fib. dms., single dm., works..lb. .65 • —
Marine pitch, dms. .....lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works.....lb. .26½- —
bgs., l.c.l., works .....lb. .28 • —
Menadione, USP, bots. .....gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf..lb. .06¼- —
Menthol, nat., USP, Brazilian, large crystals, cs..lb. 8.50 • —
Nat., USP, Brazilian, regular crystals, cs..lb. 8.30 - 8.40
Japanese, cs. .....lb.12.00 • —
Syn., USP, racemic, 25-lb. lots..lb. 4.25 • —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld..lb. .44 • —
bgs., fib. dms. less ton lots, same basis..lb. .46 • —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld..lb. .54 • —
bgs., fib. dms., less ton lots, same basis..lb. .56 • —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b. works..lb. 4.03 • —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works..lb. 3.78 • —
Mercuric cyanide, NF VIII, powd., fib. dms..lb. 5.84 • —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works..lb. 6.97 • —
Mercuric oxide, red, NF IX, 50-lb. dm., 100 lbs., f.o.b. works. lb. 4.72 • —
tech., 50-lb. dm., 100 lbs., same basis..lb. 4.52 • —
Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis. lb. 4.89 • —
tech., dms., 100 lbs..... lb. 4.35 • —
25-lb. fib. dm. .....lb. 4.38 • —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm. f.o.b. works..lb. 8.22 • —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask. net-flask.212.00 -215.00
Mesityl oxide, dms., c.l., dlvd....lb. .15 • —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works .....lb. .57 • .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacryclic acid, glacial, 98%, dms., truckloads, frt. equald..lb. .42½- —
dms., smaller lots, frt. equald. lb. .43 • .75
tanks, works, frt. equald..lb. .40 • —
Methanol, nat, denaturing grade, tanks, frt. alld..gal. .85 • —
Syn., zone 1, dms., c.l., or t.l. min., dlvd..gal. .51½- —
dms., l.c.l., dlvd. .....gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area..gal. .35 • —
tankwagon, 4,000 gal. min., dlvd..gal. .30 • —
tankwagon, 4,000 gal. min., f.o.b. terminal..gal. .29 • —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .55½- —
dms., l.c.l., works.....gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area..gal. .39 • —
tanks, 4,000 gal. min., dlvd. gal. .34 • —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald..lb.21.75 • —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald..lb.27.25 • —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. ....lb. 1.10 • —
dms., l.t.l., same basis.....lb. 1.16 • —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more..lb. 3.50 • —
Feed grade, 98%, fib. dms., same basis..lb. 1.55 • —
Methoxychlor, 50% wettable powder, dealers, dms., cs..lb. .66 • —

quality...uniformity...dependable service

PURE California cold pressed lemon oil produced under continuous scientific quality control . . . bulk blended for uniformity, from desert and coastal grown lemons . . . packaged in tamper-proof containers for your protection . . . and priced to save you money. Our research and laboratory facilities have helped many users with product improvement and cost reduction...perhaps we can help you.

VENTURA PROCESSORS, Ventura, California

DISTRIBUTED BY:

International Flavors & Fragrances, Incorporated
417 Rosehill Place, Elizabeth 2, New Jersey

Ventura Processors, 2325 Vista Del Mar Drive, Ventura, California

Methyl abietate, non-ret. dms., c.l., dlvd. zone 1..lb. .21½- —
non-ret. dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis. lb. .24 - .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld..gal. .62½- —
Methyl acetone, syn., dms., c.l., frt. alld. E..gal. .66 - —
dms., l.c.l., frt. alld. E. ....gal. .76 - —
tanks, frt. alld. E. .....gal. .51 - —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
dms., l.t.l., dlvd. .....lb. .40 - —
tanks, dlvd. .....lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E..lb. .17 - —
dms., l.c.l., dlvd. E. .....lb. .18½- —
tanks, dlvd. E. .....lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. .....lb. .18½- —
tanks, dlvd. .....lb. .14½- —
Methyl amyl ketone, dms., works. lb. 1.05 - —
N-Methylaniline, tech., tanks, frt. alld..lb. .60 - —
Methylanthranilate, cns. .....lb. 2.45 - 3.00
Methyl benzoate, cns., dms. ....lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld. lb. .62 - .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works..lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis.....lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld. lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis .... lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs..lb. .79 - .82
Methyl chloride, indust., cyls., frt. equald. lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfrs., cyls., dlvd. lb. .48¾- —
Other consumers or service men, cyls., dlvd..lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns.....lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd..lb. .15 - —
dms., l.c.l., dlvd.....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works..lb. .45 - —
dms., l.c.l., works.....lb. .45¾- —
tanks, works .....lb. .43 - —
Methyl formate, refd., dms....lb. .35 - .40
Tech., non-ret. dms., any quantity, works..lb. .10 - —
tanks, works.....lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. lb. .21½- —
100-lb. multiwall paper bgs., l.t.l., works lb. .23 - —
Methyl heptin carbonate, bots..lb.27.75 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd..lb. .20 - —
dms., l.c.l., dlvd. .....lb. .20½- —
tanks, dlvd. .....lb. .17½- —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl Ketone, dms., c.l., dlvd..lb. .17 - —
dms., l.c.l., dlvd.....lb. .18½- —
tanks, dlvd.....lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va. lb. .31 - —
dms., smaller lots, same basis..lb. .31½- —
tanks, same basis.....lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms..lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld..lb. .60¼- —
dms., l.c.l., same basis.....lb. .62½- .67½
Methyl testosterone, USP, 100-gram. bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works..lb. 1.30 - —
5-39 dm. lots, same basis.....lb. 1.35 - —
tanks, same basis.....lb. 1.25 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.80 - —
Tungstated, PTMA, bbls., same basis lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted..... lb. 3.25 - —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd. lb. .13¼- —
dms., l.c.l., l.t.l., dlvd.....lb. .15¾- —
tanks, 4,000-gal. min., dlvd lb. .12¼- —
tanktrucks, 1,000-gal. min., dlvd, lb. .13¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works..lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works..lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E..lb. .06¼- —
bgs., l.c.l., ex-whse. .....lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼- —
bgs., l.c.l., ex-whse or freight alld. E..lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E..lb. .08 - —
bgs., l.c.l., ex-whse. or frt. alld. E. lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld.E..lb. .08¾- —
bgs., ex-whse. or frt. alld. E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E....lb. .08¼- —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works..lb. .10 - .11
laminating grades, tankcars, works..lb. .11 - .12
Mineral black, bgs., works .....lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy..gal. .65 - —
50-65 vis., non-ret. dms., l.c.l., basis..gal. .70 - —
tankcars, refy. .....gal. .49 - —
65-75 vis., non-ret. dms., c.l., same basis..gal. .65 - —
non-ret. dms., l.c.l., same basis..gal. .70 - —
tankcars, refy. .....gal. .49 - —
NF, 80-90% vis., non-ret. dms., c.l., same basis..gal. .66 - —
non-ret. dms., l.c.l., same basis..gal. .71 - —
tankcars, refy. .....gal. .50 - —
NF, 135-138 vis., non-ret. dms., c.l., same basis..gal. .72 - —
Mineral oil, white, NF, 135-138 vis., non-ret. dms., l.c.l., same basis..gal. .77 - —
tankcars, rfy. .....gal. .56 - —
NF, 145-155 vis., non-ret. dms., c.l., same basis..gal. .78 - —
non-ret. dms., l.c.l., same basis..gal. .83 - —
tankcars, refy. .....gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis..gal. .80¼- —
non-ret. dms., l.c.l., same basis..gal. .85½- —
tankcars, refy. .....gal. .64½- —
USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy..gal. .82½- —
non-ret. dms., l.c.l. .....gal. .87½- —
tankcars, refy .....gal. .66½- —
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy..gal. .87½- —
non-ret. dms., l.c.l. .....gal. .92½- —
tankcars, refy. .....gal. .71½- —
(For f.o.b N. Y. add 2c. for tankcars; 2c. for c.l., and 3c. for l.c.l. non-ret. dms.).
Mineral orange, American, bbls., c.l., works..lb. .17 - —
bbls., c.l., same basis.....lb. .18 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey..gal. .29 - —
New York .....gal. .305 - —
Houston, Texas .....gal. .25 - —
regular, tankcars, New Jersey and New York..gal. .18 - —
Group 3 .....gal. .12875- —
Houston, Texas .....gal. .145 - —
140 F. flash, New York, New Jersey at terminal..gal. .205 - —
Houston, Texas ....gal. .17 - —
Mink oil, dms. .....lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works..lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans..gal. .08¾- .09
tanks, New York.....gal. .13½- —
Molybdated orange, bbls. ..... lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works .. kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., c.l., dlvd. .....lb. .995 - —
tanks, dlvd. .....lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis .....lb. .59 - —
tanks, same basis .....lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works.....lb. .56 - —
tanks, works .....lb. .54 - —
Mono-tert-butyl-m-cresol, dms., c.l., works..lb. .55 - —
dms., l.c.l., works.....lb. .56 - —
tanks, works .....lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E..lb. .10½- —
dms., l.c.l., same basis.....lb. .11½- —
tanks, same basis.....lb. .08¾- —

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WATER DISPERSED DRIERS FOR WATER DISPERSED PAINTS

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uniform and stable water dispersions
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Monoethanolamine, dms., c.l., dlvd.	lb.	.27½- —
dms., l.c.l., same basis	lb.	.29 - —
tanks, same basis	lb.	.25 - —
Monoethylalphanaphthylamine (see Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E, 100% basis	lb.	.38½- —
dms., l.c.l., dlvd. E., 100% basis.	lb.	.40 - —
tanks, dlvd. E., 100% basis	lb.	.35 - —
Monoethylaniline (see N-Ethylaniline).		
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).		
Monoisopropanolamine, dms., c.l., dlvd. E	lb.	.27½- —
dms., l.c.l., same basis	lb.	.29 - —
tanks, same basis	lb.	.25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd	lb.	.33½- —
dms., l.c.l., same basis	lb.	.35 - —
tanks, same basis	lb.	.31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis	lb.	.30 - —
tanks, 100% basis	lb.	.26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis	lb.	.36 - —
Monomethylamine, 30-35% soln., dms., l.c.l., frt. equald, 100% basis	lb.	.36½- —
tanks, frt. equald., 100% basis.	lb.	.26 - —
40% soln., dms., frt. equald., 100% basis	lb.	.33 - —
dms., l.c.l., frt. equald., 100% basis	lb.	.33½- —
tanks, frt. equald, 100% basis.	lb.	.26 - —

Monopentaerythritol, tech., bgs., c.l., dlvd. E	lb.	.31 - —
bgs., l.c.l., dlvd. E	lb.	.32 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld.	lb.	3.05 - —
dms., 100-lb. lots, same basis	lb.	3.25 - —
Monosodium glutamate, dms., dlvd.	lb.	1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic).		
Montan wax, Calif., refd., bgs	lb.	.27 - .28
Imp., crude, Bohemian, bgs	lb.	.21 - .22
German, bgs	lb.	.26 - .27
Morphine, cns., 100-oz., f.o.b. works.	oz.	12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works	oz.	9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works	oz.	9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works	oz.	9.90 - —
Morpholine, dms., c.l., dlvd. E	lb.	.55¼- —
dms., l.c.l., dlvd. E	lb.	.56¼- —
tanks, dlvd. E	lb.	.52¾- —
Muriatic acid (see Hydrochloric acid).		
Musk, syn., ambrette, fib. dms., 100-lb. lots	lb.	4.40 - 4.90
cns., 25-lb. lots	lb.	4.50 - 5.00
Ketone, fib. dms., 100-lb. lots	lb.	4.60 - 5.10
cns., 25-lb. lots	lb.	4.70 - 5.20
Xylol, fib. dms., 100-lb. lots	lb.	1.26 - —
cns., 25-lb. lots	lb.	1.40 - —
Mustard seed, Danish, yellow, bgs.	lb.	.11½- —
Montana, yellow, bgs	lb.	.10½- —
Oriental, bgs	lb.	.08 - —

Mustard, oil, syn., bots	lb.	1.60 - 1.85
Myristic acid, bgs.	lb.	.28¼- .30¾
tanks	lb.	.27¼- —
Myrrh gum, cs	lb.	.65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).		
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).		
Naphtha, VM&P, petroleum, tank-cars, New Jersey and New York	gal.	.19 - —
Group 3	gal.	.13875- —
Houston, Texas	gal.	.155 - —
Naphthalene, crude, dom., 78°, tanks, frt. equald.	lb.	.06 - —
imp., 78°, bgs., large lots	lb.	.09½ Nom.
Refd., indust., chipped, crushed, bgs., frt. equald.	lb.	.13½- —
tanks, same basis	lb.	.10¾- —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis.	lb.	.15½- —
cs., 50 lbs., c.l., same basis.	lb.	.15¾- —
1-lb. pkgs., c.l., same basis.	lb.	.18½- —
a-Naphthol, dms., frt. alld	lb.	1.02 - —
b-Naphthol, tech., flake, bbls., c.l., works	lb.	.34 - —
bbls., l.c.l., works	lb.	.36 - —
Naphthol, ITR, red toner, bbls., works	lb.	5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).		
1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid).		
1-Naphthol-5-sulfonic acid (see L acid).		
1-Naphthol-5-sulfonic 8-amino acid (see S acid).		
2-Naphthol-6,8-disulfonic acid (see Gamma acid).		
Naphthol sulfonic mixed acid (see Cleve's acid).		
a-Naphthylamine, dms., frt. alld.	lb.	.52 - —
b-Naphthylamine, tech., flake, bbls., works.	lb.	1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).		
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).		
2-Naphthylamine-1-sulfonic acid (see Tobias acid).		
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).		
2-Naphthylamine-7-sulfonic acid (see F acid).		
Naringin, fib. dms.	lb.	8.50 - —
Neatsfoot oil, 15° cold test, dms.	lb.	.29 Nom.
20° cold test, dms.	lb.	.28 Nom.
30° cold test, dms.	lb.	.27 Nom.
Neocinchophen, USP, dms., frt. adjusted	lb.	7.00 - 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity	gram.	.25 - —
fib. dms., 100-999-gram lots, basis activity	gram.	.30 - —
Tech., fib. dms.	gram.	.13½- —
Neopentylglycol, dms., c.l., dlvd	lb.	.32 - —
dms., l.c.l., same basis	lb.	.33 - —
Nerol, dms.	lb.	4.75 - —
Neroli oil, NF, French, bots	lb.	425.00 -575.00
Tunisian, bots.	lb.	400.00 - —
Nerolin, cns.	lb.	2.45 - 2.85
Neville and Winther's acid, dms., frt. alld.	lb.	1.40 - —
Niacinamide (see Nicotinamide).		
Nickel acetate, bbls., dlvd.	lb.	.68½- .75½
Nickel carbonate, bbls., dlvd.	lb.	78¼- .85¼
Nickel chloride, bbls., dlvd.	lb.	.37 - .45
Nickel formate, bbls., ton lots, frt. alld.	lb.	.72 - .73
Nickel metal, electro cathodes, cs., works	lb.	.74 - —
Nickel nitrate, dms., frt. alld.	lb.	.31½- .33½
Nickel oxide, black, bbls.	lb.	.85 - —
Green, bbls.	lb.	.84 - —
Nickel sulfate, bgs., c.l., dlvd.	lb.	.28 - —
bgs., l.c.l., dlvd.	lb.	.28½- .36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., dlvd.	kilo.	6.50 - —
dms., less than 100 kilos, dlvd.	kilo.	6.60 - 7.00
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld	lb.	1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld	lb.	1.05 - —
Nicotinic amide, USP (see Nicotinamide).		
Niger seed, bgs.	lb.	.10¼- —
Nikethamide, cbys.	lb.	5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E	100 lbs.	5.75 - —
cbys., l.c.l., works E	100 lbs.	6.05 - 6.85
38° Be., cbys., c.l., works E.	100 lbs.	6.25 - —
cbys., l.c.l., works E	100 lbs.	6.55 - 7.35
40° Be., cbys., c.l., works E.	100 lbs.	6.75 - —
cbys., l.c.l., works E	100 lbs.	7.05 - 7.85
42° Be., cbys., c.l., works E.	100 lbs.	7.25 - —
cbys., l.c.l., works E	100 lbs.	7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis	100 lbs.	3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis	100 lbs.	4.90 - —
CP, NF, consumer, cbys., extra, c.l., works	lb.	.18½- —
cbys., extra, l.c.l., works	lb.	.20 - —
5-pint bots., extra, cs., c.l., same basis	lb.	.22½- —
5-pint bots., extra, cs., l.c.l., same basis	lb.	.24 - .25
dms., frt. alld.	lb.	.99 - —
m-Nitroaniline, cryst., dms., frt. alld.	lb.	1.15 - —
Paste, dms., frt. alld., 100% basis.	lb.	1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld.	lb.	.49 - —
dms., l.t.l., frt. alld.	lb.	.51 - —
o-Nitroaniline orange toner, kgs.	lb.	1.35 - —
p-Nitroaniline, c.l., t.l., dms., frt. alld.	lb.	.445 - —
dms., l.c.l., same basis	lb.	.46½- —
o-Nitroanisole, tech., tanks, frt. alld.	lb.	.36 - —
p-Nitroanisole, tech., solid, dms., frt. alld.	lb.	.72 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld.	lb.	.13 - —
dms., l.c.l., frt. alld.	lb.	.14 - —
tanks, frt. alld.	lb.	.11 - —
p-Nitrobenzoic acid, dms., c.l., works	lb.	.63 - —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works	lb.	.64 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.37½- —
bbls., l.c.l., same basis	lb.	.33½- .40¼
18-20, cps., bbls., c.l., same basis	lb.	.39½- —
bbls., l.c.l., same basis	lb.	.40½- .42¼
250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.43 - .46
Nitrocellulose, spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis	lb.	.43 - —
bbls., l.c.l., same basis	lb.	.44 - .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis	lb.	.42 - —
bbls., l.c.l., same basis	lb.	.43 - .45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.		
o-Nitrochlorobenzene, dms., c.l., frt. alld.	lb.	.15 - —
dms., l.c.l., same basis	lb.	.16 - —
tanks, same basis	lb.	.13 - —
p-Nitrochlorobenzene, dms.	lb.	.26 - .27
2-Nitro-p-cresol, tech., dms., dlvd	lb.	.88 - —
Nitroethane, dms., c.l., dlvd. E	lb.	.25 - —
dms., l.c.l., dlvd. E	lb.	.26½- —
tanks, dlvd. E	lb.	.22½- —
Nitroethane prices West of Rockies are 1c higher.		
Nitrogen solution, frt. alld, N. unit, equal to tankcars,	lb.	1.26 - —
Nitrogen tetroxide, indust., f.o.b. Hopewell, Va.	lb.	.065 - —
Cyls., t.l., min. 5 tons, same basis	lb.	.13½- —
Cyls., l.c.l., l.t.l., same basis	lb.	.15 - —
Nitrogenous process tankage, bulk, works unit-ton.		4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works.	unit-ton.	2.95 - —
Nitromethane, dms., t.l., dlvd. E	lb.	.25 - —
dms., l.t.l., dlvd. E	lb.	.26½- —
Nitromethane prices West of Rockies are 1c higher.		
a-Nitronaphthalene, bbls., frt. alld.	lb.	.31 - —

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DR-70

o-Nitrophenol, dms., works, frt. equald..lb. .94 - —
p-Nitrophenol, dms., c.l., frt. alld. lb. .45 - —
dms., l.c.l., frt. alld.....lb. .47 - —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies..lb. .23½- —
dms., l.c.l., same basis.....lb. .25 - —
tanks, same basis.....lb. .21 - —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies..lb. .18½- —
dms., l.c.l., same basis.....lb. .20 - —
tanks, same basis.....lb. .16 - —
Nitropropane prices West of Rockies are 1c. per lb. higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 - —
o-Nitrotoluene, dms., c.l., frt. alld lb .15 - —
dms., l.c.l., frt alld. .....lb. .16 - —
tanks, frt. alld. .....lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms., l.c.l., works .....lb. .28 - —
flake, dms., c.l., t.l., works..lb. .27½- —
dms., l.c.l., works .....lb. .28 - —
m-Nitro-p-toluidine, dms. .....lb. 1.25 - —
Nonylphenol, dms., c.l, frt. alld. lb. .22 - —
dms., l.c.l., frt. alld.....lb. .23 - —
tanks, frt. alld. .....lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.36 - —
West Indian, bgs .....lb. 1.30 - —
Nutmeg oil, USP, dist., East Indian, cns..lb. 9.00 -12.00
West Indian, cns. .....lb. 9.00 -12.00
Nux vomica, bls. .....lb. .20 - —
Powd., bbls., bxs. .....lb. .20 - .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms.....lb. .48 - .55
Octane, indust., tanks, Bayonne, N.J...gal. .20 - —
Borger, Tex. .....gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd., Zone 1..lb. .43½- —
dms., l.c.l., dlvd. Zone 1—lb. .45½- —
tanks, dlvd., Zone 1.....lb. .41 - —
Octyl alcohol, perfumers grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works..lb. .54½- —
dms., l.c.l., same basis.....lb. .55 - —
Octyl phenol, bgs., c.l., works..lb. .22 - —
bgs., l.c.l., works.....lb. .22½- —
tanks, works.....lb. .21 - —
Octyl phenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms. .....lb. .16 - .16½
tanks .....lb. .14 - —
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks .....lb. .15 - —
S.d., dms. .....lb. .16¼- .18⅜
tanks .....lb. .13¾- —
Oleo oil, extra, dms. .....lb. .14¾- —
Oleostearine, dms. .....lb. .12½- .12¾
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs.....lb. .15 - .20
Tears, cs. .....lb. .22 - .30
Olibanum oil, bots.....lb. 5.00 - 7.65
Extra fine, bots .....lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid..gal. 2.30 - 2.40
Olivine, crude, works.....ton.12.00 - —
20 mesh, works.....ton.15.00 - —
100 mesh works.....ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works..oz.19.20 - —
gran., cns., 50 lbs., same basis. oz.21.65 - —
powd., cns., 50 lbs., same basis. oz.21.65 - —
Orange oil, sweet distilled, Calif., cns., dms..lb. .60 - —
Florida, cns., dms.....lb. .35 - —
Expressed, Calif., cns., dms.....lb. .70 - .90
Florida, cns., dms.....lb. .45 - .50
Messina, cns. .....lb. 3.25 - 5.00
West Indian, bitter, cns., dms. lb. 2.50 - 3.25
Orange peel, bitter, Haitian, bls..lb. .18 - .20
Sweet .....lb. .28 - .30
Origanum oil, Spanish, cns.....lb. 1.80 - 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls.....lb. .55 - —
powd., bbls., bxs.....lb. .65 - —
Verona, bls .....lb. .35 - —
powd., bbls., bxs.....lb. .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2.3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots.....gram. 3.00 - 4.00
Ouricury wax, crude, bgs.....lb. .56 - .58
Refd., pure, bgs .....lb. .64 - .66
Oxalic acid, bgs., dms., c.l., works. lb. .18 - .18½
bgs., dms., 10,000-lb. lots, works. lb. .18¼- .18¾
bgs., dms., smaller lots, works. lb. .19¼- .19¾
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld..lb. .912 - —
Dyestuff manufacture, dms., same basis..lb. 1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works..lb. 4.75 - 5.00
cns., smaller lots, works.....lb. 4.92 - 5.17

P

Palm oil, clarif., dms. .....lb. .1390- .1490
tanks .....lb. .11½- —
Palm oil acid, dist., dms. .....lb. .15¾- .19¼
tanks .....lb. .13¾- .14¼
Palmarosa oil, cns. .....lb. 4.45 - 6.00
Papain, powd., bots. .....lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots..oz. 5.00 - —
cns., smaller lots .....oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns..oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. .....lb. .25 - —
Hungarian, bgs. .....lb. .29 - —
Spanish, bgs. .....lb. .34 - —
Yugoslavian, bgs. .....lb. .29 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. .....lb. 1.21 - —
Chlorinated, kgs. .....lb. 1.36 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy..lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy..gal. .14 - —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld. lb. .10 - —
bgs., l.c.l., frt. alld .....lb. .12 - .13
91%, powd., bgs., c.l., ex whse.lb. .1715- —
bgs., l.c.l., ex whse.....lb. .1865- —
USP-X, fib. dms., c.l. .....lb. .19 - —
fib. dms., 1,000-lb. lots .....lb. .20 - —
fib. dms., smaller lots .....lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd. lb. .14 - —
55-gal. dms., l.c.l., dlvd....lb. .15 - —
tanks, dlvd. .....lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediaminel).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., frt. alld lb. .84 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld lb. .45 - —
Passion flower herb, bls. .....lb. .45 - .50
Patchouli oil, imp., cns. .....lb. 5.50 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E. of Rockies lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, 45%, bgs., f.o.b. mills ton.52.00 -57.00
Peanut oil, crude, tanks, f.o.b. mills. lb. .16¾- —
Refd., dms. .....lb. .22 - .22¼
tanks .....lb. .20 - —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls..lb. 1.28 - —
Imp., Danish, bbls., ex whse...lb. 1.28 - —
Pelargonic acid, dms., c.l., dlvd..lb. .25 - —
ton lots, same basis .....lb. .27½- —
tanks, same basis .....lb. .23½- —
Penicillin, potassium, cryst., bulk. 1,000,000 units. .021 - —

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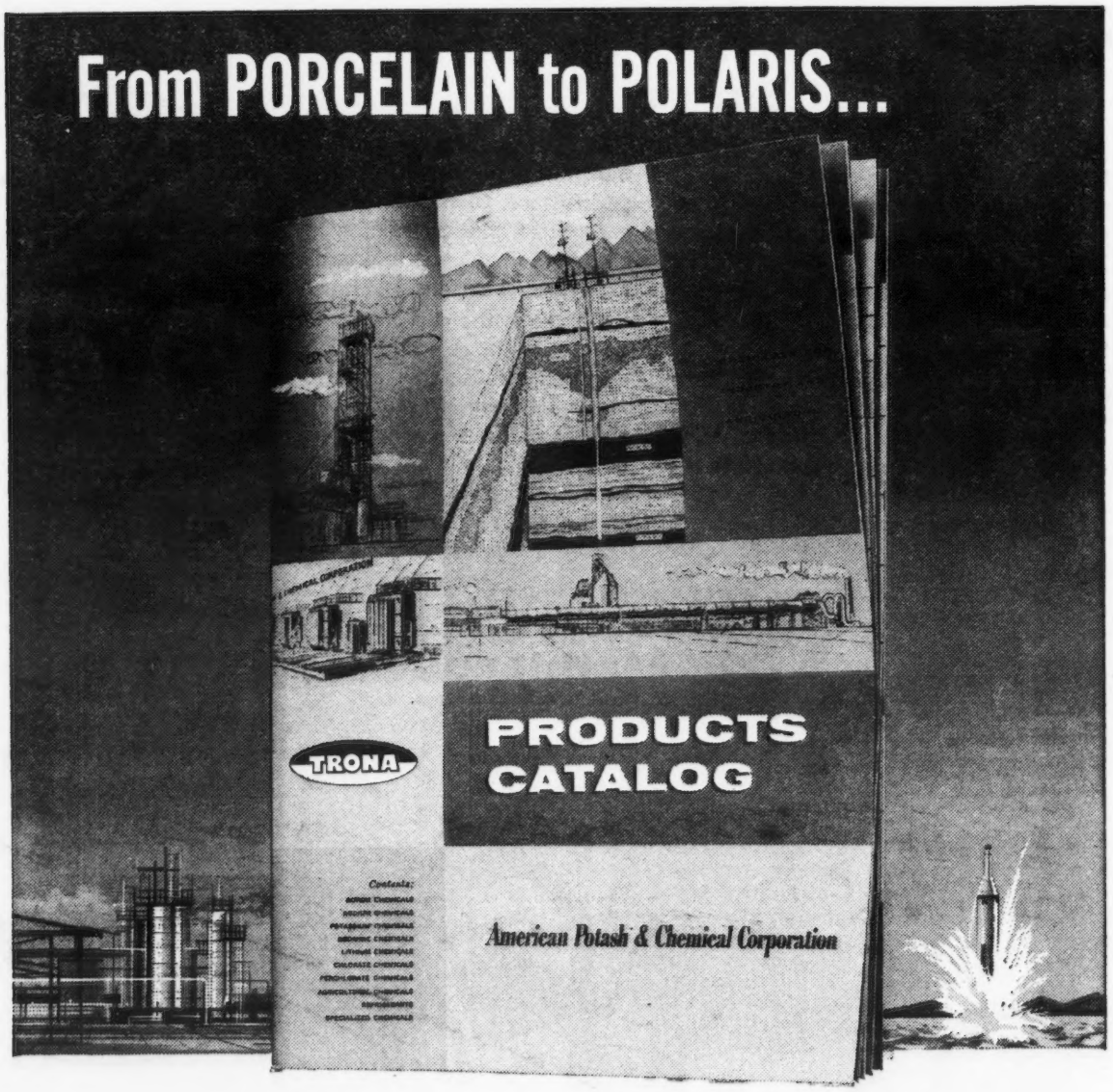
Penicillin, procaine, cryst., bulk, 1,000,000 units. .023 - —
Pennyroyal oil, USP, imported, cns. lb. 1.95 - 2.25
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., l.c.l., same basis lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. lb. .63 - —
Lampong, bgs. lb. .63 - —
Red, Funiuas, bgs. lb. .32 - —
Japanese, Hontoka, bgs. lb. .37½- —
Santaka, bgs. lb. .31½- —
Sudanese, bgs. lb. .36 - —
White, Muntok, bgs. lb. .82 - —
Peppermint leaves, dom., USP, bls., dms lb. .70 - .75
Imp., USP. bls. lb. .85 - —
Peppermint oil, nat., dms. lb. 4.00 - 4.60
Redist., USP, dms. lb. 4.25 - 5.25
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd lb. .12¼- —

Perl acid, dry, bbls., frt. alld lb. 1.60 - —
Paste, bbls., frt. alld lb. 1.55 - —
Peru balsam, dms. lb. 1.10 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.50 - 3.25
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., l.c.l., dlvd. lb. .10125-.11375
tanks, refy. lb. .05875- —
Extra amber, dms., c.l., refy. lb. .07125- —
dms., l.c.l., dlvd. lb. .09125-.10375
tanks, refy. lb. .04875- —
Petrolatum, lily white, dms., c.l., refy lb. .08625- —
dms., l.c.l., dlvd. lb. .10625- .12
tanks, refy. lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .095 - .10375
tanks, refy. lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55%, sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms., same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
Phenol, 30°C., or above, tar dist., non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld lb. .18½- —
dms., same basis lb. .20½- —
tanks, same basis lb. .16½- —

Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld lb. 1.30 - —
250-lb. dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd lb. .44 - —
fib. dms., l.t.l., same basis lb .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l. same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.35 - —
100%, bots. lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E. lb. .41 - —
dms., l.c.l., dlvd. E. lb. .42½- —
tanks, dlvd. E. lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, comi, fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .77 - —
Phenylethyl acetate, bots. lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. lb. 1.10 - 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 - —
dms., smaller lots, frt. alld lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. 1.80 - —
fib. dms., smaller lots, dlvd. E lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb, .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —
Philippine copal gum, pale, chips, bgs lb. .23¾- .26
nubs, bgs. lb. .33¼- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 - .24
Phloroglucinol, comi., fib. dms., works lb. 6.40 - —
CP, bots., works lb. 17.75 - —
Tech., fib dms., works lb. 10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .15½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. short-ton. 5.298 - —
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.648 - —
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.228 - —
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.128 - —
76-77%, b.p.l., c.l., bulk, same basis short ton. 8.018 - —
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
cbys., l.c.l., same basis 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 - —
cbys., l.c.l., works 100 lbs. 8.10 - 9.35
tanks, t.w., works 100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 - —
cbys., l.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20¼
dms., l.c.l., works, frt. equald lb. .21½- —
tanks, works, frt. equald, lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works, frt. equald lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms., l.c.l., works lb. .14½- .15¼
Solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13¼
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., l.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., l.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .19 - .23
bgs., l.c.l., same basis lb. .20 - .24
tanks, same basis lb. .18½- .22½
Phthalimide, 97-98%, dms., frt. alld lb. .65 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 - —
Pythalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works lb. 3.35 - —
Resinated, bbls. lb. 3.00 - —
Water dispersable, bbls. lb. 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies.
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald lb. .41 - .43½
dms., l.c.l., works, frt. equald lb. .41½- .44
tanks, same basis lb. .38 - .42
b-Picoline, 98%, dms., t.l., works. lb. 1.05 - —
dms., l.c.l., same basis lb. 1.15 - —
tanks, same basis lb. .95 - —
b,g-Picoline, 5°C, dms., c.l., works. lb. .32½- —
dms., l.c.l., works lb. .33 - —
g-Picoline, dms., f.o.b., works lb. 1.60 - —
tanks, t.l., same basis lb. 1.50 - —
Picric acid, NF, bbls. lb. .85 - —
Tech., bbls. lb. .44 - —
Pigment green B, kgs. lb. 1.50 - —
Pilocarpine hydrochloride, USP, bots oz. 5.25 - —
Pilocarpine nitrate, USP, bots., vials. oz. 5.15 - —
Pimento, Jamaican, bgs. lb. .68 - —
Mexican, bgs. lb. .57 - —



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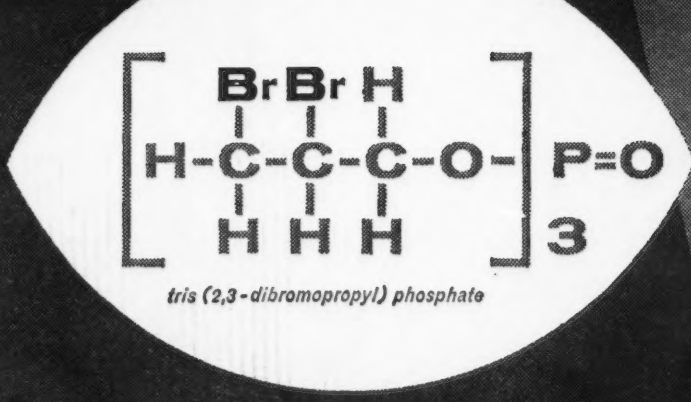
Pimento berry oil, NF, dms. ....lb. 3.75 - 9.25
Pimento leaf oil, crude, cns. ....lb. 2.20 - 2.60
Pine oil, dest.-dist., dms., l.c.l. works lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —
Steam-dist., dms., ex whse., New York lb. .185 - —
dms., dlvd. ....lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberoca oil).
Pinetar, retort, dms., c.l., works..lb. .0611- —
dms., l.c.l., works ....lb. .0684- —
dms., c.l., ex whse., New York. lb. .0795- —
tanks, works ....lb. .0511- —
Pinetar oil, comi., dms., c.l., works. lb. .0611- —
dms., l.c.l., works ....lb. .0684- —
dms., c.l., ex whse., New York. lb. .0795- —
tanks, works ....lb. .0511- —
NF, rectified, dms., incl., l.c.l., works, South lb. .40 - —
dms., l.c.l., ex whse., New York lb. .41½- —
Pinetar oil, refd., dms., incl., l.c.l., works lb. .35 - —
dms., incl., l.c.l., ex whse, New York. lb. .36½- —
Pink root, bls. ....lb. 1.75 - —
Piperazine, anhyd., dms., c.l., frt. alld. lb. 1.80 - —
dms., l.c.l., same basis ....lb. 1.83 - —
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld lb. 1.15 - —
Piperazine dihydrochioride, 51%, dms., 1,000 lbs. or more, frt. alld lb. .1.23 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld lb. .86 - —
dms., 200-900 lbs., frt. alld. lb. .89 - —
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld lb. 1.06 - —
Piperidine, dist., 98% min., dms., c.l., t.l., frt. equald. ..lb. 2.55 - —
Piperonyl butoxide, dms., dlvd. E.lb. 4.50 - 5.05

PITCHES
Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).
Platinum metal, works....oz.81.00 -85.00
Pleurisy root, bls. ....lb. .45 - .50
Podophyllum resin, NF, dms. ....lb.12.50 - —
Poke root, bls. ....lb. .19 - .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works. lb. .44 - —
dms., smaller lots, works ....lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works ....lb. .47 - .49
Pontianak copal gum, chips, bgs. lb. .25 - —
Nubs, bgs. ....lb. .37 - .40
Poppy seed, Argentine, bgs. ....lb. No stocks.
Dutch, bgs. ....lb. .18 - —
Danish, bgs. ....lb. .17 - —
Polish, bgs. ....lb. .18 - —
Turkish, bgs. ....lb. .14 - —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs. 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis 100 lbs. 3.70 - —
reg., flake, 88-92%, dms., c.l., same basis ..100 lbs. 9.55 - —
reg., flake, 88-92%, dms., l.c.l., same basis ..100 lbs.10.60 - —
solid, 88-92%, dms., c.l., works. 100 lbs. 9.10 - —
dms., l.c.l., works ....100 lbs.10.15 - —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E lb. .31 - —
Potassium bicarbonate, USP, gran. dms lb. .22 - —
powd., dms. ....lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works ....lb. .18½- .19¾
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald lb. .37 - —
100-lb. bgs., 5,000 lbs., 1 shipt., same basis lb. .38 - —
100-lb. bgs., smaller lots, same basis lb. .40 - —
Potassium borohydride, powd., dms., works..lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works..lb. .50 - —
dms., smaller lots, works....lb. .52 - .62
Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40
Potassium carbonate, dom., NF, gran., bbls., dms lb. .20 - —
Dom., tech., powd., bbls., dms. lb. .21 - .22
Dom., calcinated, bgs., c.l., works. 100 lbs. 8.50 - —
bgs., l.c.l., same basis 100 lbs. 9.55 - —
Dom., hydrated, 83-85%, bgs., c.l., works..100 lbs. 7.10 - —
bgs., l.c.l., works ..100 lbs. 8.15 - —
Potassium chlorate, cryst., dms., c.l., works..lb. .12¼- —
dms., l.c.l., works ....lb. .13½- .14½
Powd., dms., c.l., works....lb. .12¾- —
dms., l.c.l., works....lb. .14 - .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works..lb. .16¾- —
NF, gran., 25-lb. metal dms ..lb. .36 - —
NF, powd., dms., 2,000 lbs. or more, works .lb. .17¼- —
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works..ton.29.00 - —
bgs., c.l., works ....ton.33.50 - —
99.3% KCL, bulk, c.l., works.ton.28.00 - —
bgs., c.l., works ....lb.32.50 - —
USP, cryst., dms. ....lb. .20 - .22
USP, gran., dms. ....lb. .21 - .23
USP, powd., dms. ....lb. .24 - .26
Potassium chloride agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E lb. .43 - —
powd., 250-lb dms., same basis. lb. .46 - —
Potassium cyanide, dms., 20,000-lb. lots or more, works ..lb. .42½- —
dms., 2,000-19,999-lb. lots, works. lb. .43 - —
dms., smaller lots, works....lb. .44 - .44½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works..lb. .50 - —
dms., smaller lots, works ....lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots ....lb. .29 - —
Potassium fluoborate, fib. dms., c.l., works..lb. .30 - —
fib. dms., l.c.l., works....lb. .31 - —
Potassium fluoride, dms., works..lb. .37 - .38
Potassium gluconate, 100-lb. dm., f.o.b. works E lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms. lb. 2.10 - 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP, cryst., gran., or powd., 250-lb. dm., f.o.b. works lb. 1.40 - —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works. unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms., lb. .16 - —
Powd., dms. ....lb. .27 - —
Potassium muriate, standard, bulk, c.l., works..unit-ton. .33 - .35
bagged 60% minimum K_2O, same basis ton.24.80 -26.00
Gran., bulk, c.l., works unit-ton. .34 - .36
bagged, 60% minimum K_2O, same basis..ton.25.40 -26.40
Inside prices apply to material contracted for prior to July 1, 1959.
Outside prices apply to material contracted for after that date but also for delivery during the current month.
Potassium nitrate, NF, cryst., bbls., 20-ton lots..100 lbs.17.00 - —
bbls., smaller lots....100 lbs.18.00 -19.00
gran., bgs., 20-ton lots..100 lbs. 9.50 - —
bgs., smaller lots....100 lbs.11.00 -12.00
powd., bgs., 20-ton lots..100 lbs.10.50 - —
bgs., smaller lots....100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l., works..ton.219.50 - —
dms., ton lots, ex whse....ton.311.00 - —
dms., smaller lots, ex whse..ton.316.00 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works..lb. .18½- —
dms., l.c.l., works....lb. .19 - .20
Potassium permanganate, coml., kgs., works..lb. .25 - .33
USP, dms., works....lb. .29 - .35
Potassium persulfate, dms., c.l., works..lb. .17½- —
dms., l.c.l., works ....lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works..lb. .15½- .18½
Potassium prussiate red (see Potassium ferro-cyanide).
Potassium prussiate yellow (see Potassium ferro-cvanide).
Potassium silicate, electrical grade, 30° Be, 1.2.0, dms., c.l., works..100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works....100 lbs. 7.25 - 7.65
tanks, works....100 lbs. 6.15 - —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works..100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more, works..100 lbs. 6.70 - —
tanks, works....100 lbs. 5.60 - —
Potassium silicate, glass grade, bgs., c.l., works..100 lbs.17.30 -18.00
bgs., l.c.l., works ....100 lbs.17.80 —
Soln., 29° Be, 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works ....100 lbs. 4.60 - —
Potassium silicofluoride, bgs., works. lb. .09½- .10
Potassium silicofluoride in drums, 0.4c. per lb. higher.
Potassium stannate, dms., frt. alld. E lb. .789 - .861
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works..unit-ton. .62½- .64½
Inside price applies to tonnage contracted for prior to July 1, 1959.
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.
Potassium sulfate, NF VII, cryst., dms., lb. .31 - .33
NF VII, gran., dms....lb. .18½- —
NF VII, powd., dms....lb. .16 - .17
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).
Potassium thiocyanate, NF, cryst., dms., works lb. .96 - .98
Tech., dms., works ....lb. .77 - .79
Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works....lb. .16½- —
ctns., 1-ton lots or less, works..lb. .16¾- —

Firemaster* T23P

Flame retardant for plastics



tris (2,3-dibromopropyl) phosphate

More halogen=more flame retardance. Michigan Chemical's Firemaster* T23P contains a high bromine content of 68.7% with 4.4% phosphorus. This imparts particularly efficient fire retardancy to expandable polystyrene and other styrene products, polyesters, phenolics, acrylic resins, PVC, epoxies and urethane foams. Because of its fundamental superiority, small quantities of Firemaster* T23P may suffice. Its clarity and light color usually preclude any problem of color carryover to end products. Firemaster* T23P is now available commercially in any quantity from pounds to carloads. Write today for technical data, samples, and prices.

*Reg. U.S. Pat. Off.

For complete listing of Michigan Chemical products, see your copy of Chemical Materials Catalog

MICHIGAN CHEMICAL CORPORATION
689 North Bankson Street, Saint Louis, Michigan
Eastern Sales Office: 230 Park Avenue, New York 17, New York
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Potassium-Magnesium Sulfate—Sardine Oil

Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price, ton 13.45 - —
bulk, works, July forward ton 14.00 - —
Potassium-sodium tartrate, NF, gran. or powd., 250-lb. dms., c.l., works E lb. .42½- —
250-lb. dms., 5,000-lb. lots, same basis lb. .43 - —
250-lb. dms., same basis lb. .43½- —
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium flouride, fib. dms., c.l., works lb. .50 - —
fib. dms., l.c.l., works lb. .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb. 2.25 - —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb. 2.40 - —
dms., 500 lbs lb. 2.45 - —
dms., 100 lbs lb. 2.50 - —
Progesterone, USP, bots gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Propenyl guaethol, dms. lb. 24.30 -27.00
b-Propriolactone, dms., c.l., t.l., f.o.b. works lb. .89 - —
dms., l.c.l., l.t.l., same basis lb. .90 - —
tanks, same basis lb. .87 - —
Propionic acid, syn., pure, dms., c.l., works lb. .23¼- —
dms., l.c.l., works lb. .24¾- —
tanks, works lb. .20¾- —

n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd lb. .16¼- —
tanks, dlvd. lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., l.c.l., dlvd lb. .15½- .16½
tanks, dlvd. lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo. 55.00 - —
bots., smaller lots kilo. 55.10 -55.30
n-Propylamine, dms., c.l., dlvd lb 1.24 - —
dms., l.c.l., same basis lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis lb. .0995- —
tanks, same basis lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis.
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis lb. .18¾- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —
Propylene oxide, dms., c.l., dlvd. E. lb. .17 - —
dms., l.c.l., dlvd. E lb. .18½- —
tanks, dlvd. E lb. .14½- —

Psyllium seed, black, bgs lb. .30 - .35
Blonde, bgs. lb. .18 - .20
Husks, bgs. lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03⅝- .04¼
bgs., smaller lots lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots lb. .06½- —
fine, bgs., ton lots lb. .04 - —
sun dried, coarse, bgs ton. 60.00 - —
fine, bgs. ton. 60.00 -70.00
Pumpkin seed, bgs lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 - 9.80
Pyrethrum liquid, 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal. 45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 11.00 -11.35
purif, 20%, dms., works lb. 11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equald gal. 2.55 - —
dms., l.c.l., same basis gal. 2.70 - —
Refd., 2°, non-ret. dms., l.c.l., same basis lb. .70 - —
dms., c.l., same basis lb. .69½- —
tanks, same basis lb. .65 - —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works kilo. 175.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).

Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb. 3.50 - —
Pyrogallol, NF, 100-lb. dms lb. 3.50 - —
Pyroxylin, USP, bots lb. 9.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal).
Rapeseed oil, dms lb. .15 - .15¼
tanks lb. .13 - —
Rare earth oxalate, NF, 45-50%, bgs, works lb. 1.15 - —
Quince seed, bgs lb. 1.30 - 1.40
Quinidine sulfate, USP, 1.000-oz. dm oz. .74½- —
Quinine, NF, 1.000-oz. dm oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1.000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald. lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

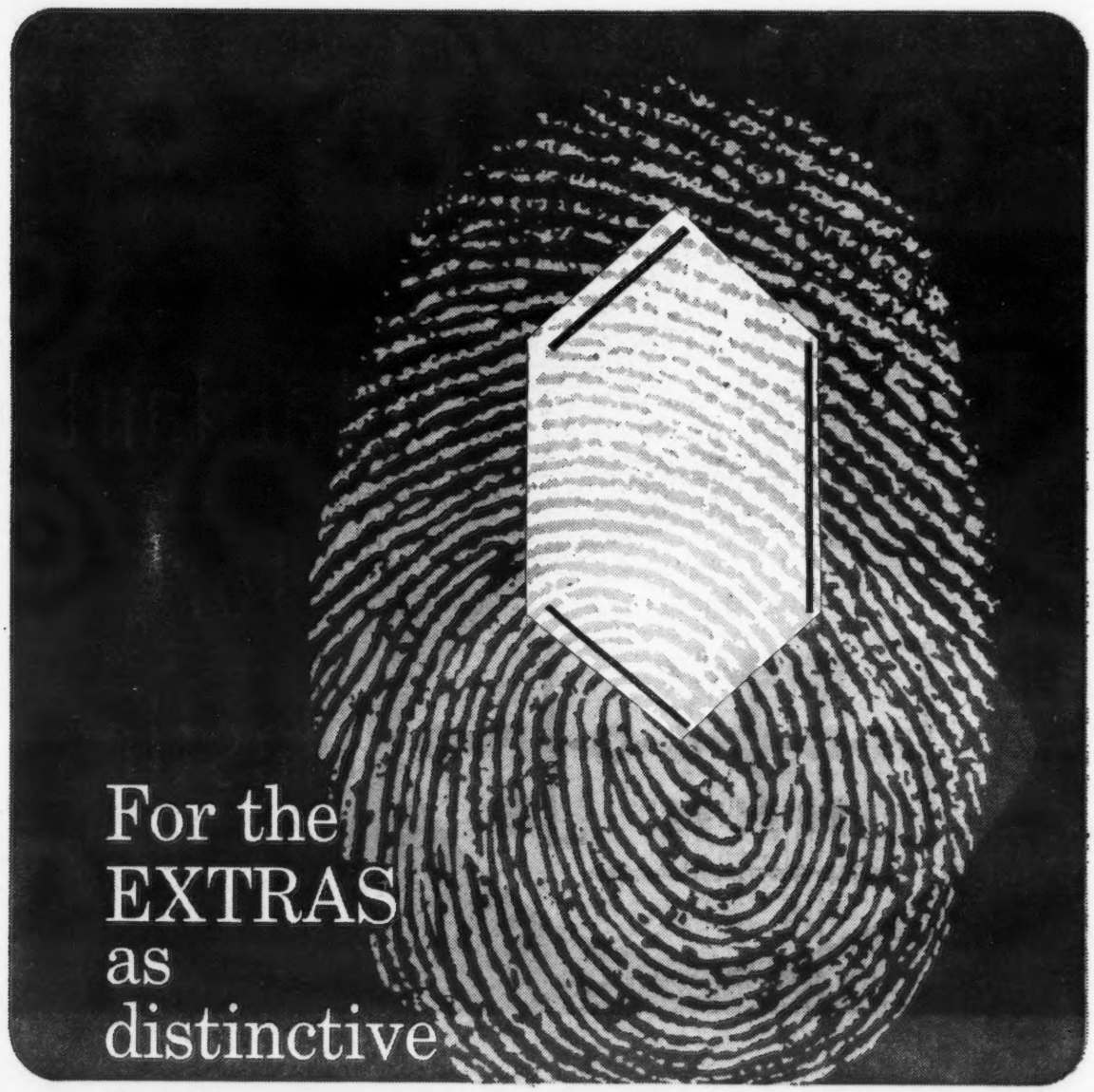
R salt paste, dms., frt. alld., 100% basis lb. .98 - —
Powd., frt alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms lb. .15 - .15¼
tanks lb. .13 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.25 - —
Reserpine, cryst., bots gram. 1.25 - —
Resorcinol, tech grade, dms., c.l., works, frt. equald lb. .77¼- —
dms., l.c.l., same basis lb. .78½- —
USP, powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans lb. 42.00 -51.00
Synthetic lb. 14.00 -16.00
Rhubarb root, India, whole, bgs lb. .25 - —
powd., bgs. lb. .35 - —
tanks, same basis lb. .14½- —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo. 36.00 - —
Riboflavin, USP, readily soluble, lots, dlvd kilo. 13.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo. 104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .14 - .14½
tanks, dlvd. E lb. .12 Nom.
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots oz. 72.00 - —
Turkish, bots. oz. 55.00 -58.00
Rosemary oil, Spanish, NF, cns., dms lb. .97 - 1.40
Spanish, tech., cns., dms lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, unit-lb. .12 - —
Resin, 25-45%, fib. dms., works, unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo. 13.00 - —
fib. dms., 5 kilo lots kilo. 13.50 - —
fib. dms., 1 kilo kilo. 14.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms., smaller lots lb. 1.55 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms., smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1755- .18
tanks, Atl. Coast lb. .1555- —
Saffron, Mancha Superior, tins lb. 19.50 - —
Safrol, dms. lb. .65 - —
Sage, Dalmatian, bgs lb. .40 - —
Greek, cns. lb. .16 - —
Italian, cns. lb. .18 - —
Sage oil, clary, bots. lb. 15.50 -17.00
Dalmatian, cns. lb. 2.85 - 3.25
Spanish, cns. lb. 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb. dms lb. 1.05 - —
Salicylic acid, sublimed, tech., fib. dms., c.l., t.l., dlvd lb. .40½- —
fib. dms., l.c.l., dlvd lb. .44¾- —
Salicylic acid, USP, cryst., 200-lb. 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb. fib. dms., less than 1,000 lbs lb. .54¾- —
100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .56¾- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran., bbls., kgs lb. 1.20 - —
Powdered salol, 25c. per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton. 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms lb. .75 - .76
Sandalwood oil, cns. lb. 19.00 - —
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
Sardine oil, crude, tanks, Pac. coast, lb. No stocks.



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HIGH PURITY PHENOLS, CRESOLS, CRESYLIC ACIDS • RUBBER CHEMICALS • ARYL MERCAPTANS

Sassafras oil, artif., dms. lb. .43 - —
Nat., dom., dms. lb. 1.45 - 2.15
Savory oil, cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 - —
Sebacic acid, CP, bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .23 - —
powd. bbls., bxs lb. .17 - —
Serpentaria root,, bls lb. 6.50 - —
Sesame oil, USP, dms lb. .38 - .39
Sesame seed, Colombian, bgs. lb. .15½- —
Lebanese, hulled, bgs lb. .19 - —
Nicaraguan, hulled, bgs lb. .21½- —
nat., bgs. lb. .14 - —
Salvadorian, Nat., bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots lb. .47 - —
kgs., 1,500-lb. lots lb. .48 - —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots. lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .43 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton 25.00 - —
bgs., l.c.l., works, ex whse. ton 45.00 - 55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton 20.00 - —
bgs., l.c.l., works ton 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton 15.00 - —
bgs., l.c.l., works ton 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .22 - .30½
tanks, works lb. .17 - —
Silver bullion, ingots, cs Troy oz. .91⅜- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz. lots oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 3,000-oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns lb. 40.00 -43.00
Soapbark, crushed, bls lb. .30 - .35
Powd., bls. lb. .35 - .40
Whole, bls. lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald. 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Soda, caustic, flake, 73%, sellers' tanks, works, dry basis. 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works. 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works. lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pent-oxide, dms., any quantity,
Sodium arsenite, 90% pink powder, 75% arsenious oxide, leaders, dms., ton lots or more, works lb. .17½- —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works kilo. 10.00 - —
10-kilo dm., same basis kilo. 10.35 - —
5-kilo dm., same basis kilo. 10.75 - —
1-kilo bot., same basis kilo. 11.00 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld. lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, dms., c.l., t.l., frt. alld. lb. .38 - —
dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13½- .14¾
Sodium bichromate in dms. ¾c. per lb. higher.
Sodium bifluoride, bbls., c.l., works, frt. equald. lb. .19½- —
bbls., l.c.l., same basis lb. .2025- —
Sodium bisulfate, bulk, c.l., works. 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10

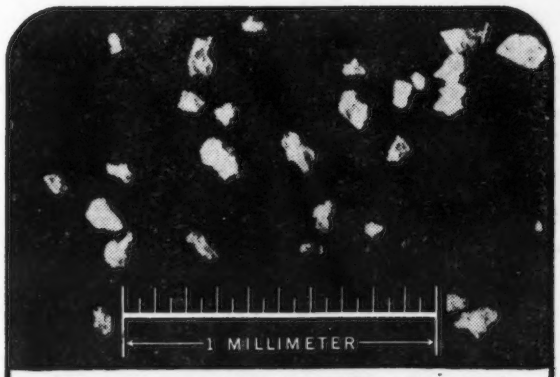
Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works. 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works lb. 19.90 - —
dms., l.c.l., works lb. 33.00 -40.00
Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works lb. .15¼- .16½
Sodium chromate tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. lb. .1063- .1190

Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb. lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb. lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots lb. .198 - —
Sodium cyclamate, 100-lb. dm., f.o.b. works lb. 1.93 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 - —
250-lb. dms., l.c.l., works lb. .18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., l.t.l., same basis lb. .47 - .52
tanks, same basis lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. .14¾- —

Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald. lb. .1390- —
fib. dms., l.c.l., works, frt. equald. lb. .1465- —
Sodium formate, bgs., c.l., works, 100 lbs. 7.65 - —
bgs., l.c.l., ex whse 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 - —
dms., 50-99 lbs., same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs. or more, same basis lb. .95 - —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms, c.l., frt. alld. lb. .23½- —
dms., l.c.l., frt. alld. lb. .25¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb. .23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 1.98 - —

Get Sodium Bicarbonate in the grain size you need **every time...**

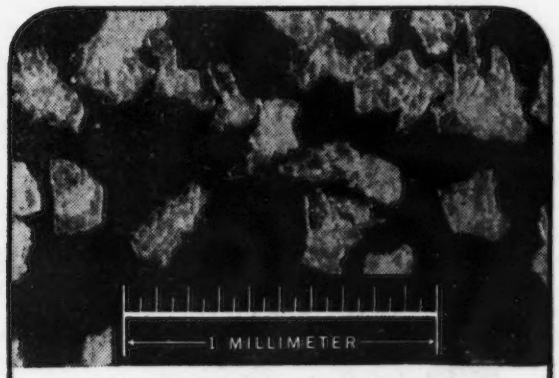
FROM CHURCH & DWIGHT



Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in pharmaceuticals, chemical processing, tooth powder, industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

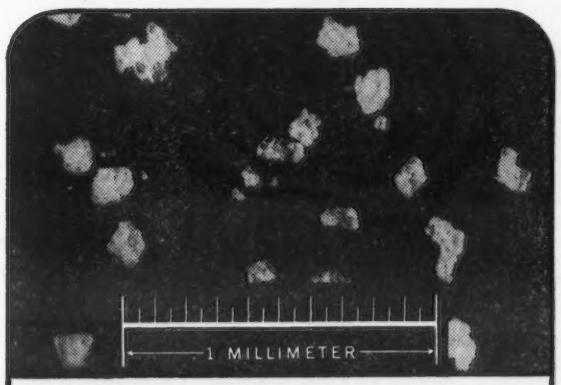
42 Mesh.....Trace	200 Mesh.....35.0%
100 Mesh.....5%	325 Mesh.....70.0%
170 Mesh.....20.0%	400 Mesh.....80.0%



Sodium Bicarbonate U.S.P. Granular No. 5 for manufacture and compounding of effervescent salts, fruit soft drink tablets and other pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

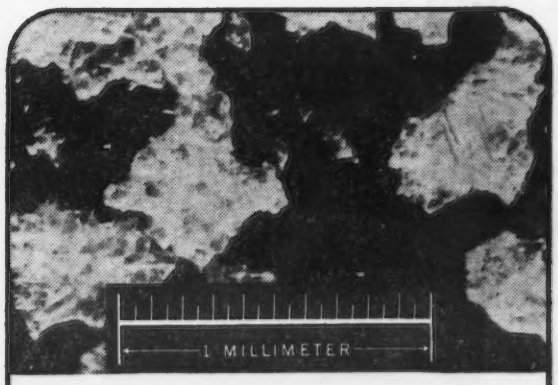
42 Mesh.....Trace	100 Mesh.....92.5%
65 Mesh.....27.0%	170 Mesh.....99.0%
80 Mesh.....66.5%	



Sodium Bicarbonate U.S.P. Granular No. 4 for use in pharmaceuticals, baking powders and cake mixes.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

80 Mesh.....Trace	200 Mesh.....91.0%
100 Mesh.....1.5%	325 Mesh.....98.5%
170 Mesh.....80.5%	



Sodium Bicarbonate U.S.P. Extra Coarse Granular No. 6 for use in formulating special pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

28 Mesh.....None	65 Mesh.....91.0%
42 Mesh.....13.0%	80 Mesh.....98.5%
48 Mesh.....33.0%	100 Mesh.....99.3%

Why jeopardize the shelf life or sparkling performance of your pharmaceutical products with an inappropriate granulation of sodium bicarbonate? To eliminate risks, specify Church & Dwight. You'll obtain the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience in the formulating of Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. Write today for latest technical data sheets.

CHURCH & DWIGHT CO., INC., 70 PINE STREET, NEW YORK 5, N.Y.

Sodium Lauryl Sulfate—Solvent Naphtha

Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
t.c.l., bgs., works 100 lbs. 4.40 - 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs. 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton.210.00 - —
bgs., ton lots, ex whse 100 lbs.13.93 - —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works. lb. .21 - —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt. 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 - —
dms., c.l., same basis 100 lbs.11.70 - —
dms., l.c.l., same basis 100 lbs.12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .99
Cryst., dms., works, frt. alld. lb. .74 - .76
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .72 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton.48.00 - —
bulk, c.l., works ton.44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton.48.00 - —
bulk, c.l., same basis ton.44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs.11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works 100 lbs. 7.60 - 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 - —
99%, bgs., works 100 lbs.15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 - —
dms., l.c.l., same basis lb. .26½- .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 - —
Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs., l.c.l., works lb. .19 - .21
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 - .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —
Sodium phenosulfonate, USP, IX, gran., dms lb. .52 - .53
NF, powd., dms. lb. .55 - .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.95 - —
bgs., l.c.l., same basis 100 lbs. 8.35 - 9.40
Dibasic, cryst., bgs., c.l., frt. equald. 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald 100 lbs. 5.00 - 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —
USP, dried, powd., bgs., dms., works lb. .19 - .20½
Monobasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 9.00 - —
bgs., l.c.l, same basis 100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald .100 lbs. 9.00 - —
bgs., l.c.l., frt. equald 100 lbs. 9.45 -10.05
Sodium phosphate in dms. 60c. to 80c. higher than bgs.
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.
Sodium prussiate, yellow (see Sodium ferrocyanide).
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 12.35
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l. same basis 100 lbs. 9.21 - 9.71
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms. lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss., south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works 100 lbs. 6.20 - —
Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 - —
52° Be, 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1.3.2, bgs., works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Sodium stannate, dms., works, frt. alld. E lb. .648 - .707
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton.54.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton.36.00 - —
bulk, c.l., works ton.32.00 - —
USP, cryst., fib. dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms. lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —
Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald. 100 lbs. 7.75 - —
100-lb. bgs., l.c.l., l.t.l., frt. equald. 100 lbs. 8.15 - —
Sodium thiosulfate, tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb. bgs., l.c.l., l.t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs. 5.20 - —
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt. alld. E lb. .42 - —

Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis 100 lbs. 8.56 - 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs. 9.70 -13.13
dms., c.l., works 100 lbs. 9.45 - —
dms., l.c.l., works 100 lbs.10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E lb. 1.32 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium - formaldehyde sulfoxylate, dms., c.l., dlvd. lb. .21 - —
dms., l.c.l., same basis lb. .21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt. equald. gal. .30 - .35½

Cowles
METASILICATE
(CRYSTAMET)
Is Freer Flowing
Crystamet is the sodium metasilicate pentahydrate with smoother, more uniform, pure white particles. This means Crystamet is dust-free, easier to handle and use, more resistant to caking, compounds better. Write for a free sample of Crystamet 2040, or the coarser 1020 or finer 3080 grades, and a technical data sheet. Just mail request on your company letterhead.

Cowles
1885—75th Anniversary—1960
CHEMICAL COMPANY
7018 Euclid Avenue · Cleveland 3, Ohio

Solvent naphtha, petroleum, straight aromatic, 310°-360° F. b.r., 14°-16° C. m.a.p., tankcars, New Jersey and New York	gal.	.29	—
Houston, Texas	gal.	.29	—
355°-420° F. b.r., 17°-18° C. m.a.p., tankcars, New Jersey and New York.	gal.	.30	—
Houston, Texas	gal.	.30	—
Solvent naphtha, petroleum, partial aromatic, 211°-265° F. b.r., 31° C. m.a.p., tankcars, New Jersey and New York	gal.	.235	—
286°-340° F. b.r., 22° C. m.a.p., tankcars, New Jersey and New York	gal.	.275	—
319°-380° F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York	gal.	.27	—
322°-395° F. b.r., 28° C. m.a.p., tankcars, New Jersey and New York	gal.	.28	—
Sorbital, powd., dms., c.l., works	lb.	.36	—
dms., 1 to 5-ton lots, works.	lb.	.38	.39
Soln., coml., aqueous, dms., c.l., works	lb.	.24¼-	—
dms., ton lots, works	lb.	.25	—
dms., smaller lots, works	lb.	.25¼-	—
tanks, works	lb.	.23¼-	—
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works	lb.	.33	—
Sorbitan monostearate, fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.35	—
fib. dms., smaller lots, works	lb.	.38	.40
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works	lb.	.34	—
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.36	—
fib. dms., smaller lots, works	lb.	.39	.41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works	lb.	.18	—
dms., l.c.l., works	lb.	.19	—
tanks, works	lb.	.16¼-	—
cryst., resin grade, pellets, dms., c.l., works	lb.	.23	—
dms., 1 to 5-ton lots, works.	lb.	.25	.26
Soya protein, chemically isolated, old process, bgs., c.l., works.	lb.	.23	—
bgs., l.c.l., works	lb.	.23¼-	.23½
Chemically isolated, new process, bgs., c.l., works	lb.	.20	—
bgs., l.c.l., works	lb.	.20¼-	.29½
Soybean meal, 44%, bulk, unrestricted, Decatur	ton	50.00	—
Soybean oil, crude, tanks, Decatur.	lb.	.09	—
Foots, soapstock, acid 95%, tanks, N. Y.	lb.	.05½-	—
Refd., alkali, dms.	lb.	.1330-	.1325
tanks	lb.	.1130-	—
Clarified, dms.	lb.	.1280-	.1305
tanks	lb.	.1080-	—
Salad, dms.	lb.	.1310-	.1335
tanks	lb.	.1110-	—
Soybean oil acids, dbl. dist., dms.,	lb.	.17	.19½
tanks	lb.	.14½-	—
S. D., dms.	lb.	.15¾-	.18¼
tanks	lb.	.13¼-	—
Sparteine sulfate, cns., 100 oz. or more	oz.	.80	—
Spearmint leaves, dom., bls	lb.	.75	—
Spearmint oil, NF, dms.	lb.	9.00	-11.75
Sperm oil, bleached, winter, 45°, dms.	lb.	.1575-	.1675
tanks	lb.	.1375-	—
Nat., winter, 45°, dms.	lb.	.1475-	.1575
tanks	lb.	.1275-	—
Spermaceti wax, blocks, cs.	lb.	.31	.33
Cakes, cs.	lb.	.32	.34
Spruce oil, cns., dms.	lb.	2.10	- 3.55
Squill, white, bls.	lb.	.16	.18
Powd., bbls., bxs.	lb.	.17	.20
St. John's bread, edible, bls.	lb.	.17	—
Stannic chloride, anhyd., dms., works	lb.	.817	.839
Stannic oxide, dms., dlvd.	lb.	1.10	- 1.11
Stannous chloride, anhyd. dms., works	lb.	1.013	- 1.268
Hydrous, cryst., dms., works	lb.	.87½-	.88½
Stannous sulfate, dms., works	lb.	1.067	- 1 087
Star root (see Helonias root).			
Stargrass root (see Aletris root.)			
Stavesacre seed, bgs.	lb.	.60	.61
Stearic acid, dbl., pressed bgs.	lb.	.15¾-	.18¼
Single-pressed, bgs.,	lb.	.15¼-	.17¾
Triple-pressed, bgs.	lb.	.17½-	.20
Stearine, oleo (see Oleostearine.)			
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York	gal.	.18	—
tanks, Houston	gal.	.1475-	—
tanks, group 3	gal.	.12875-	—
Stramonium leaves, bgs.	lb.	.13	—
Streptomycin sulfate, bulk, gram.		.035	.036
Strontium bromide, NF, cryst., 100-lb. dm., f.o.b. E	lb.	.92	—
Strontium carbonate, pure, dms., 5-ton lots or more, works.	lb.	.35	—
dms., 1-ton lots, works	lb.	.37	—
Tech., dms., works	lb.	.19	—
Strontium chromate, fib. dms., dlvd.	lb.	.48	—
Strontium iodide, jars, 25-lb. lots	lb.	3.57	—
Strontium nitrate, bgs., c.l., works.	100 lbs.	11.00	—
bgs., l.c.l., works	100 lbs.	12.00	—
Strontium salicylate, NF, dms.	lb.	1.88	—
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works.	ton	56.70	-66.15
Strophanthin G (see Quabain, USP).			
Strophanthin K, bots.	oz.	25.00	-25.50
Strophanthus seed, Kombi, biologically tested, bgs.	lb.	3.50	- 3.75
Styrax gum, USP, cs.	lb.	4.50	- 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld.	lb.	.17	—
dms., l.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.14½-	—
Tech., 99.2%, dms., c.l.	lb.	.1501-	—
dms., l.c.l., same basis	lb.	.1701-	—
tanks, bulk, same basis	lb.	.1251-	—
Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.			
Styrolyl acetate, bots.	lb.	1.10	—
Succinic acid, purif., cryst., dms., t.l., frt. alld.	lb.	.62	—
dms., l.t.l., same basis	lb.	.63	.75
Succinic anhydride, dms., c.l., t.l., dlvd.	lb.	.51	—
dms., l.c.l., same basis	lb.	.52	—
Sucrose, refd., white, bgs., refy. E.	lb.	.0920-	—
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd.	lb.	.33½-	—
dms., l.t.l., same basis	lb.	.35	—
tanks, same basis	lb.	.31	—
100%, t.l., dms., dlvd.	lb.	.35½-	—
l.t.l., dms., same basis	lb.	.37	—
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works	lb.	1.00	—
Sugar (see Sucrose).			
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works	lb.	.60	.65
80-lb. ctns., spot	lb.	.65	.75
Sulfabenzamide, dms.	kilo.	8.80	- 9.90
Sulfabenzamide-sodium, dms.	kilo.	9.00	-10.10
Sulfacetamide, USP, fib. dms	kilo.	6.61	- 6.83
Sulfacetamide-sodium, USP, fib. dms.	kilo.	8.15	- 9.25
Sulfadiazine, USP, microcrystals, dms.	kilo.	23.35	-24.45
USP, powd., dms.	kilo.	22.60	-23.70
Sulfadiazine-sodium, USP, dms.	kilo.	24.80	-25.90
Sulfaguanidine, NF X, dms.	kilo.	5.50	- 6.60
Sulfamerazine-sodium, USP, powd., dms.	kilo.	24.80	25.90
Sulfamethazine, USP XV, microcrystals, dms.	kilo.	19.65	-20.75
USP XV, powd., dms.	kilo.	18.75	-19.85
Sulfamic acid, cryst., dms., c.l., t.l., works	100 lbs.	16.00	—
dms., l.c.l., l.t.l., works	100 lbs.	17.50	18.50
Gran., dms., c.l., t.l., works.	100 lbs.	14.75	—
dms., l.c.l., l.t.l., works	100 lbs.	16.25	-17.25
Sulfanilamide, NF, reg., 1,000 lb., frt. equald.	lb.	1.50	—
NF, fib. dm., frt. equald.	lb.	1.55	—
Sulfanilamide quinoxaline, veterinary, dms.	kilo.	16.28	—
Sulfanilic acid, tech., dms., c.l., frt. alld.	lb.	.21	—
dms., l.c.l., frt. alld.	lb.	.23	—
Sulfapyridine, USP XV, powd., bots., tins.	kilo.	15.45	-16.55
Sulfapyridine-sodium, monohydrate, dms.	kilo.	16.55	-17.65
Sulfathiazole, NF X, microcrystals, dms.	kilo.	6.25	- 6.90
NF X, powd., dms.	kilo.	5.50	- 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more	lb.	2.35	—
Sulfur, coml., flour, bgs., mines.	100 lbs.	2.35	—
bbls., mines	100 lbs.	3.30	—
lump, bgs., mines	100 lbs.	2.25	—
bbls., mines	100 lbs.	2.80	—
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines	long-ton	23.50	—
export, f.o.b. vessels, Gulf ports.	long-ton	25.00	—
US and Canada, f.o.b. vessels Gulf ports	long-ton	25.00	—
Domestic dark sulfur prices are $1 per long-ton lower.			
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos	long-ton	24.00	—
Mexican dark sulfur price is $1 per long-ton lower.			
Sulfur, refd., flowers, NF, bgs., mines	100 lbs.	5.65	—
bbls., mines	100 lbs.	7.00	—
flour, light, bgs., mines	100 lbs.	5.25	—
bbls., mines	100 lbs.	6.25	—
lump, bgs., mines	100 lbs.	4.95	—
rolls, bgs., mines	100 lbs.	5.50	—
bbls., mines	100 lbs.	6.25	—
salt block, bgs., mines	100 lbs.	4.65	—
virgin block, bbls., mines	100 lbs.	4.70	—
Sulfur, rubbermakers, coml., reg., bgs., mines	100 lbs.	2.45	—
bbls., mines	100 lbs.	3.70	—
98-100%, passing through 325 mesh, bgs., mines	100 lbs.	2.55	—
bbls., mines	100 lbs.	3.80	—
refd., bgs., mines	100 lbs.	4.90	—
bbls., mines	100 lbs.	6.05	—
treated, 2.5% mineral oil, bgs., mines	100 lbs.	2.75	—
bbls., mines	100 lbs.	4.00	—
Sulfur dichloride, ret. dms., c.l., works, frt. equald.	lb.	.05¼-	—
ret. dms., l.c.l., same basis	lb.	.05½-	—
tanks, same basis	lb.	.04½-	—
Sulfur dioxide, liq., coml., cyls., works, frt. equald.	lb.	.10	.12
multi-unit cars, works	lb.	.0535-	—
tanks, works	lb.	.045	—
Sulfur dioxide, refrigeration, cyls., dlvd.	lb.	.33	—
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald.	lb.	.05¼-	—
dms., l.c.l., same basis	lb.	.06¼-	—
tanks, same basis	lb.	.04½-	—
Sulfuric acid, 60° Be, cbys., c.l., works	100 lbs.	2.00	—
cbys., l.c.l., works	100 lbs.	2.30	—
tanks, works	ton.	18.60	—
66° Be, cbys., c.l., works	100 lbs.	2.25	—
cbys., l.c.l., works	100 lbs.	2.55	- 3.35
tanks, works	ton.	22.35	—
98%, tanks, works	ton.	23.50	—
99%, tanks, works	ton.	23.70	—
100%, tanks, works	ton.	23.95	—
CP, NF, consumers' cbys., c.l., frt. equald.	lb.	.12¾-	—

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Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis. lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld. lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis. lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ton.29.00 - —
65%, tanks works ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
bulk, f.o.b. vessel at Fla. unit-ton. 1.03 - —
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns lb. 2.00 - 3.05

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2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 - —
bgs., l.c.l., works ton.31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ton.34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l works ton.38.00 - —
625 mesh, micronized, bgs., c.l., works ton.80.00 - —
ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04¼- .04½
tanks, works lb. .02¾- .03
Dist., depending on grade, dms., c.l., works lb. .06½- .07¼
dms., l.c.l., works lb. .07 - .03
tanks, works lb. .04½- .05¼
Tall oil, refd., depending upon grade, dms., c.l., works lb. .07¼- .09
dms., l.c.l., works lb. .07½- .09¼
tanks, works lb. .05¼- .06¾
Tall oil acids, dms., c.l., works lb. .07 - .08
dms., l.c.l. lb. .07¼- .08¼
tanks, works lb. .05 - .06
Tallow, edible, tanks, dlvd. lb. .08½- —
Inedible, fancy, bleachable, tanks. lb. .05⅞- —
fancy, guaranteed, bulk, f.o.b. steamer lb. .06½- —
dms., f.a.s. lb. .07½- —
tanks, dlvd. lb. .06¼- .06¼
No. 1, tanks, dlvd. lb. .05¼- .05¼
Prime, tanks, dlvd. lb. .05⅜- —
Special tanks, dlvd. lb. .05½- —
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .14¾- .17¼
Tallow oil, acidless, dms., c.l. lb. .13½- —
dms., l.c.l. lb. .14½- .15½
Tangerine oil, Florida, dms lb. 4.75 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk. unit-ton. 5.25 - 5.75
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots lb. 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 - 1.99
Tech., dms. lb. 1.05 - —
Tansy oil, dms lb. 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 - —
Terpineol, extra, dms lb. .50 - .60
Prime, dms. lb. .40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. lb. .53 - .56
Terpinyl propionate, dms. lb. 1.70 - —
Terra alba (see Gypsum).
Testosterone, USP, bots. gram. No prices.
Testosterone propionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms., l.c.l., dlvd. E lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .55 - —
tanks, dlvd. E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn. lb. .32½- —
dms., c.l., t.l., Newark, N.J. lb. .33½- —
dms., l.c.l., Newark, N.J. lb. .34½- —
tanks, dlvd. E. of Denver lb. .31 - —
tanks, dlvd. W. of Denver lb. .32 - —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E. lb. .39 - —
l.c.l., l.t.l., same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works lb. 4.40 - 4.75
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt. alld kilo.36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo.38.00 - —
Thiamine mononitrate, USP, fib. dms., frt. alld kilo.36.00 - —
Thiocarbanilide, dms., ton lots lb. .72 - —
dms., less ton lots lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less thar. ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
di Threonine, bots., 1-kilo lots kilo.275.00 - —
Thyme leaves, French bgs lb 29 - —
Spanish, bgs. lb. .11 - —
Thyme leaves, bgs. lb. .29 - —
Spanish, bgs. lb. .11 - —
Thyme oil, NF, red, cns., dms. lb. 1.90 - 2.25
NF, white, cns. lb. 2.20 - 2.60
Tech., white, cns. lb. .40 - 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works lb. 3.06 - —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works lb. 7.40 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) lb. 1.03 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd. lb. .25½- —
bgs., l.c.l., dlvd. lb. .26½- —
reg., bgs., c.l., dlvd. lb. .25½- —
bgs., l.c.l., dlvd. lb. .26½- —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.ton.180.00 - —
bgs., 5-ton lots, Niagara Falls, N. Y. ton.205.00 - —
bgs., ton lots, same basis. ton.215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .28½- —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd lb. .09⅜- —
bgs., l.c.l., works lb. .09⅞- —
50% Ti O_2, high-tinting, dms., c.l., lb. .14⅜- —
dms., l.c.l. lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27½- .29
tanks, works lb. .20 - —
Tobias acid, dms., c.l., t.l. lb. .78 - —
dms., l.c.l. lb. .81 - —
d a-Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 - —
dl-a-Tocopherol, bots. kilo.99.00 - —
dl-a-Tocopheryl acetate, bots kilo.90.00 - —
25% dry, powd., bots kilo.22.50 -24.00
33⅓ dry, powd., bots. kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 - —
Paste, kgs., 100% basis lb. 1.50 - —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis lb. 1.50 - —
Tolu balsam, cns. lb. 3.50 - 3.65
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25 - —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies gal. .25 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., l.t.l., same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 - —
1,000-lb. or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam, cs. lb. 1.30 - —
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., l.t.l., works lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs. lb. 3.90 - 3.95
No. 2, cs. lb. 3.60 - 3.75
No. 3, cs. lb. 3.25 - 3.40
USP, powd., bbls. lb. 1.05 - 1.15
Triacetin dms., c.l., dlvd. E. of Rockies lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., dlvd. lb. .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms, l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms., l.c.l., dlvd. lb. .69 - —
Trichloroacetic acid, bots lb. 2.00 - 2.50
Trichlorobenzene, dms., c.l., frt. alld. E lb. .15 - —
dms., l.c.l., frt. alld. E. lb. .16 - —
tanks, frt. alld. E. lb. .13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms, l.c.l., dlvd. lb. .16¼- —
tanks, dlvd. lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½- —
dms., l.c.l., dlvd. E lb. .14½- —
tanks, works lb. .11½- —
Trichloroethylene, dms., c.l., or t.l., dlvd lb. .14 - —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .12¾- —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd. lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .34½- —
dms., l.c.l., dlvd lb. .35½- —
tanks, dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .26½- —
dms., l.c.l., dlvd. E lb. .28 - —
tanks, dlvd. E lb. .24 - —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., l.t.l., frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 - —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl nitrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks, frt. alld. E. of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .41½- —
tanks, dlvd. lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, same basis lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
dms., l.c.l., dlvd. E lb. .53 - —
tanks, dlvd. E lb. .49 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd. E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, frt. equald, 100% basis. lb. .26 - —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .35 - —
dms., l.c.l., l.t.l., same basis lb. .36 - —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .41 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½- —
bbls., l.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene, dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l., l.t.l., frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt. alld. E lb. .17½- —
Tripopylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib., dms., works lb.55.00 - —
Tung oil, dms., c.l., New York lb. .24¾- .25½
tanks, imported, N. Y. lb. .23¼- —
tanks, domestic, mills lb. .22½- —
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
dms., smaller lots, works lb. 2.45 - —
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tuscan red, bbls., frt. equald lb. .26 - .32
Tyrothricin, USP, 1 to 5 kilos gram. .54 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .35 - .39½
Jobbing types, bbls., same basis lb. .19 - —
Regular types, dry bbls., same basis lb. .22½- .35
Ultramarine blue prices 1c. higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l., works lb. .07¾- .08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .08¼- —
Raw, American, bgs., works lb. .07¾- .08¼
Turkey-type, bgs., works lb. .08½- .08¾
Undecylenic acid, dms. lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E. ton.125.00 - —
bgs., l.c.l., dlvd. E. ex whse. ton.145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E. ton.103.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald. ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 - —
dms., l.t.l., same basis lb. .70 - —
Uva-ursi leaves, bls lb. .12 - —

V

Valerian root, Belgian bgs. lb. .32 - —
Indian, bgs. lb. .25 - —
dl-Valine, dms., works lb.21.00 -27.50
Vanadium pentoxide, tech., dms., works lb. 1.38 - —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb.12.25 - —
Mexican cuts, tins lb.11.75 - —
whole, tins lb.12.25 - —
Vanillin ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 3.00 - —
100-lb fib. dms., 500-lb. lots lb. 3.10 - —
100-lb. fib. dms., cns. 100-lb. lots lb. 3.25 - 3.35
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb.17.25 -17.50
Haitian, cns. lb.14.50 -15.50
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb. 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd. lb. .20 - —
55-gal. dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .17½- —
tanktrucks less than 4,000 gal., dlvd lb. .18 - —
Zone 2, 55-gal. dms., c.l., dlvd. lb. .21 - —
55-gal. dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. lb. .18½- —
Vinyl acetate monomer, zone 2, tanktrucks, less than 4,000 gals. dlvd. lb. .19 - —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works lb. .125 - —
Vinyl ether USP, anethesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot. 1.56 - —
Vinyl ethyl ether tech, dms., c.l., works lb. .29¼- —
dms., l.c.l., works lb. .30 - —
tanks, works lb. .27¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb. 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16½- —
dms., l.c.l., same basis lb. .18½- —
tanks, f.o.b. dest. frt. prepaid lb. .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units. 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .07¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.65.00 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .09¼- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.95.00 - —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram. 1.14 - —
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms gram. 1.14 - —
Vitamin B_{12}, orai grade solids in containers of 1 and 10 gram of B_{12} activity gram.85.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.109.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo, dms., frt. alld gram. .90 - —
0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld gram. .90 - —
Vitamin C (see Ascorbic acid).
Vitamin D (see Codliver and Fishliver oils, Calciferol and Viosterol).
Vitamin D, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram less than kilo lots kilo.45.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

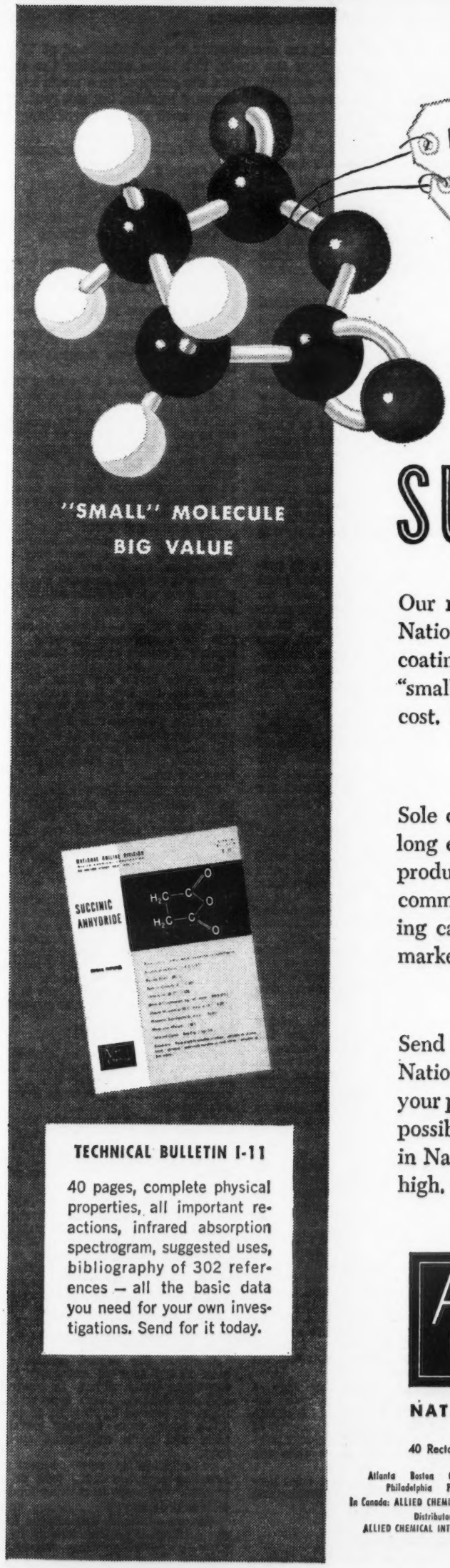
Wahoo root bark, bls. lb. 2.00 - 2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 - —
dms., 5-24-lb. lots, New York or Chicago lb. 2.15 - —
Watchung-type reds., bbls lb. 1.95 - —

WAXES

Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. gal.12.25 - —
White lead (see Lead, white).

—Continued on page 40



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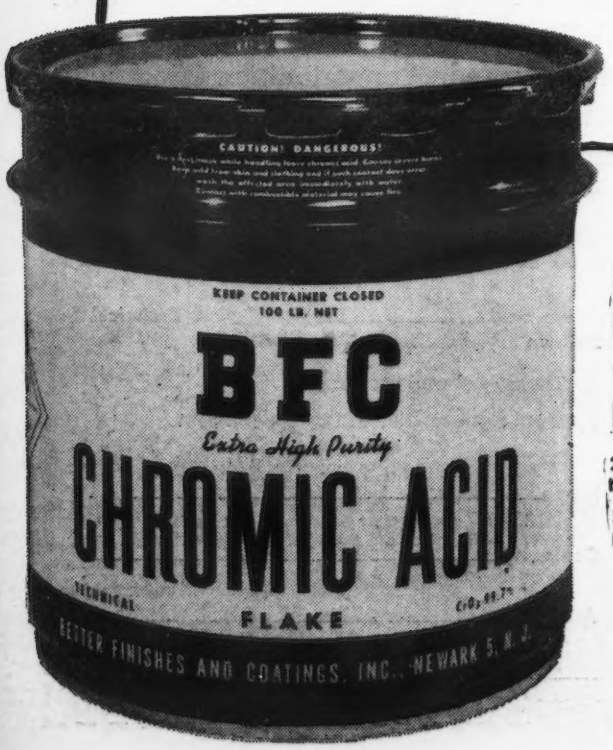

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Heavy Chemicals

Currently most lime plants are operating in the neighborhood of 70 percent of capacity, reads a report from the trade, but those supplying the more depressed steel areas, such as Youngstown, Ohio, are strapped to a much lower rate. Slight improvement is possible during the summer months, but not probable, and no real boost is expected by these trade sources until the Fall producing season. The rise anticipated for steel output last week would no more than cancel out the steep decline of the July 4 week.

Recovering quickly from a brief sales lag occasioned by July 1 price increases are caustic potash, industrial muriate of potash and ammonium chloride. Announced well in advance, the boosts encountered full bins at the consuming end—enough to coast on for several weeks, it was said.

Bucking seasonal trends, impelled forward by lively chemical processing outlets, production of both phosphoric acid and sulfuric acid rose in May, the Census Bureau reports. Details below.

In the ever-booming paper and paperboard business, production set a new record-high during the first quarter. This meant a continuing boost in alum sales. Even in these summer days, which are dog days for so many industries, paper and alum march forward.

High grade and special high grade zinc were trimmed ¼ cent a pound last week under competitive influences. Prime western, as quoted in OPD, was unaffected.

References in this space to a 25 percent price reduction for the paste form of copper sulfate last week were in error. The material reduced was actually copper hydrate. Sulfate, trade sources were quick to point out, does not come in paste form, a fact precluding, fortunately, any serious consequences from the typographical mishap.

The American Paper and Pulp Association reported production for the week ended July 9, at 56.6 percent of theoretical capacity as compared with the revised figure of 89.1 percent for the previous week and 71.5 percent for the corresponding week of last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
106.86	106.86	106.87	104.84

For Current Prices See Page 11

Acids

Hydrochloric—Production experienced a narrow seasonal decline in May. Bureau of Census reports it at 90,021 short tons, as against 93,517 the previous month. Stocks closed at 14,092 tons, having opened at 11,911, indicating a somewhat steeper decline in sales.

Reviewing these output data, trade sources said that previous reports of the detrimental effect of lower steel output on the hydrochloric picture must have been somewhat exaggerated.

Hydrofluoric—Stepping along briskly into the summer doldrums, were the words employed by one trade source to mean that sales were still lively but would not long remain so as the finger of plant shut downs beckoned.

Nitric—Production eased to 265,080 tons in May from 275,457 the previous month, the Census Bureau reports.

Phosphoric Acid — Bucking seasonal trends, impelled by lively chemical processing outlets, production advanced in May to 189,947 tons, up from 182,991 (revised figure) in April, as reported by the Census Bureau.

Sulfuric—The market picked up steam in April even while steel production was starting its long decline. Sulfuric acid makers turned out some 1,611,298 tons of the keystone chemical that month, Census Bureau reports, as against 1,556,371 tons the previous month. About half the increase found its way through the marketplace, the other half boosting industry stocks to 516,430 tons by month's end, up from 489,349 at month's start.

Having recovered from the July 4 week-end, steel output last week was expected by American Iron & Steel Institute to reach 1,513,000 tons, or 53.1 percent of capacity, up from an actual total of 1,203,000 tons or 42.2 percent of capacity the previous week.

For perspective, the Institute cites production a month ago of 1,775,000 tons; and a year ago, 1,097,000 tons.

Bases and Salts

Aluminum Sulfate—Output of paper and paperboard rang up a new record high in the first quarter of 1960, reports Business & Defense Services Administration.

The total touched 8.7 million pounds, a 7 percent rise over the 8.2 million pounds produced in the first three months of 1959, and one percent above the previous high set in the second quarter of last year.

Paper output was approximately 4 million tons, the government agency reports, with all major grades contributing to a 10 percent increase over the first quarter of '59. Paperboard reached the same total for a 5 percent gain.

Manufacturers' sales of pulp, paper, board and allied products were valued at $3.1 billion, up 7 percent over the like '59 quarter, the agency adds.

Exports rose 9.4 percent; wood pulp exports were up a washboard-thumping 74 percent.

Copper Hydrate—It was not copper sulfate, as erroneously reported here last week, but copper hydrate that was marked down 25 percent in price for paste forms. New price levels are 39.9c. for carloads and 41.9c. for less than carloads. Dried forms, as quoted in OPD, were unaffected.

Caustic Potash—The July 1 price advance, predictably, caught consumers with full bins, so that sales experienced a momentary decline as these stocks were being used up.

Caustic Soda—Until consuming industries start closing plants for vacation, which will be mostly in late July and early August, the market for caustic soda is expected to ramble along at a reasonable rate, sources close to the trade say. Prices are steady, it is noted, and supply adequate.

Lime—Currently most lime plants are operating in the neighborhood of 70 percent of capacity, but those supplying the more depressed steel areas, such as Youngstown, Ohio, find themselves hobbled to a much lower output rate, according to reports from the trade.

Of course, no improvement is expected until steel output, itself, improves.

Nonferrous Metals

Aluminum—Exports of aluminum and aluminum scrap continued at a high rate in May but were under the April level, reports Business & Defense Services Administration.

Crude aluminum exports totaled 31.9 million pounds, as against 52.8 million pounds in April. For the first five months of 1960, they totaled 274 million pounds, as against only 48.2 million pounds in the comparable period of last year.

Antimony—Recovery of secondary antimony in 1959 totaled 20,043 short tons, valued at $12.5 million, Mines Bureau reports. This compares with 19,515 short tons, valued at $12.4 million in 1958.

All recovery was from antimony-bearing lead and tin scrap, and the final product, made largely by secondary smelters, was an element of lead and tin alloys, the Bureau notes. No secondary metallic antimony was produced in the US during 1959, the agency adds.

Smelters the report continues, recovered 11,400 tons of antimony from battery-plate scrap, chiefly in production of antimonial lead. From type metal scrap, recovery totaled 3,300 tons; from drosses, 2,700 tons; from bearing metals, 1,400 tons, and from antimonial scrap 1,000 tons.

In addition to scrap, secondary lead smelters required 2,400 tons of primary metallic antimony in making lead and tin alloys, it is noted.

Copper—Abroad, speculative influences are dominated by the uprising in the Belgian Congo, which threatens to shut off supplies from that major source unless order is restored promptly.

Domestically, recent pressure on prices

Heavy Chemicals

has been downward, but the Congo situation, by strengthening the European market, is expected to counterbalance such pressure here, with even an outside change that prices will firm.

Receipts of purchased copper-base scrap at brass mills in the US totaled 25,900 tons in May, the Mines Bureau reports. This was a decline of two percent from the previous month. Total scrap consumption, in contrast, rose 7 percent. Stocks of all scrap, the agency notes, rose two percent.

Wire mills reported a 2 percent decrease in use of refined copper during the month, but brass mills said their consumption was up 5 percent, Mines notes. Stocks of refined copper at wire mills rose 32 percent to the largest total since September, 1959, but those at brass mills fell five percent.

Lead—Prices were steady, sales moderate.

Mercury—Price range was steady at $211 to $215 a flask for large lots. Buying interest lagged.

Silver—Price has been long unchanged at 91⅜c. a troy ounce, spot.

Tin—Market retained its advance of a week ago, closing at $1.03 a pound spot, for Straits metal, Friday.

Zinc—Prime western was unchanged, but competitive influences caused a decline of ¼c. a pound in special high grade and regular high grade.

Seasonal downtrend of output continued in June, the month's total tabbed by American Zinc Institute at 76,723 tons, down from 79,216 tons in May.

Shipments eased proportionally, totaling 50,690 tons on the domestic level as compared with 54,700 the month before. With exports, AZI notes, the total was 54,075 tons, as against the previous month's 2,244 tons.

Stocks by month's end had risen to 54,075 tons from 62,039 tons a month earlier.

The year's production through the end of June was tallied at 473,252 tons, domestic shipments at 408,945 tons, total shipments at 439,985 tons.

Monthly averages, AZI notes, have been 78,875 tons of production, 68,158 tons of domestic shipments, 73,331 tons of total shipments.

The production breakdown by grade for June was as follows

- Special high grade 29,023 tons, as against 32,695 tons in May.
- High grade, 7,045 tons, as against 6,095.
- Intermediate, 1,276 tons, as against 749.
- Prime western (including select and brass special), 39,383 tons, as against 39,677.

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TECHNICAL CHIEF: John C. Fedoruk, appointed technical director of Allied Chemical Corporation's General Chemical Division, New York. He succeeds Dr. Howard H. Hurmence, recently-appointed assistant director of research and development for Allied.

Eastman Forms Division To Handle Overseas Sales

Tennessee Eastman Company and Texas Eastman Company, manufacturing divisions of Eastman Kodak Company, have organized a new international unit to serve both divisions. It will have responsibility for sales and service of fibers, chemicals and plastics in all countries except the US and Canada.

Eastman Chemicals Products, Inc., will continue as sales agent in the US and Canada, through its twenty offices in the two countries.

The International Division's activities abroad will be channeled through two subsidiary corporation's now under formation. One is expected to be named Eastman Chemical International A.G. It will have headquarters in Zug, Switzerland, and a branch office in the Hague, Netherlands, from which it will direct sales to Europe, the Middle East and North Africa.

The second company will be known as Eastman Chemical, Ltd., and will be based at Nassau in the Bahamas, with another office in Hong Kong. It will be responsible for sales in Central America, South America, Australia, New Zealand, South Africa and the Far East.

Precipitated Calcium Carbonate

U.S.P. and Technical Grade

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Beryllium, Asbestos Aid Planned By Interior Dep't

Department of the Interior intends to broaden its exploration assistance program to cover additional types of asbestos and beryllium ores. Under present regulations only beryl and strategic types of asbestos are eligible.

Other changes in regulations are proposed to clarify the provisions for filing applications and the provisions for disposition of property belonging to the operator and the government jointly.

Since inception of the federal exploration assistance program in 1951, a considerable interest has been shown in exploration for these two mineral commodities.

Sixty applications were received for asbestos exploration projects. Nineteen of these resulted in contracts having a total value of $616,000 with government participation in the amount of $553,000. Five of these contracts were certified as discoveries or developments.

Applications for beryl and beryl-mica exploration asssistance numbered 100 of which 21 became contracts having a total value of $228,000 with the government putting up $203,000. Eight of these were certified as discoveries or developments.

Petrochem Converts

—Continued from page 7

1.5 billion pounds, up a spectacular 47 percent from 1958. Toluene output scored a narrower advance to 1.8 billion pounds, from the previous year's 1.5 billion. Production of xylene reached 1.6 billion pounds, as compared with 1.4 billion in '58.

Output of aliphatic hydrocarbons amounted to 17.5 billion pounds in 1959, as against 15.6 billion pounds reported for '58. Sales were 11.7 billion pounds, valued at $450 million. Thus were up from 8.5 billion pounds valued at $282 million the year before.

Production of ethylene, the commission goes on to report, was 4.95 billion pounds, as against 4.1 billion pounds a year earlier. Output of propane amounted to 2.97 billion pounds, a decline from the 3 million pounds produced in 1958.

Ethylene production increased to 2.2 billion pounds from 1.76 billion in '58. Production of butadiene established a new record of 1.8 billion pounds, up from 1.44 billion the year before.

These statistics are described by the commission as more than 95 percent complete. Final statistics will be given in a definitive report to be issued later this year.

Hazardous Label Law

—Continued from page 5

"DANGER" on substances which are extremely flammable, corrosive, or highly toxic; and the signal word "WARNING" or "CAUTION" on all other hazardous substances. "POISON" is to be used on highly toxic articles.

The chemicals must be identified on the label by their common or usual name and include an affirmative statement of the principal hazard, such as "flammable," "vapor harmful," "causes burns," "absorbed through skin," or similar wording descriptive of the hazard.

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Spencer Adds Polypropylene, Slates Seminars on Plastics

Spencer Chemical Company has begun the sale of its "Poly-Pro" polypropylene, the third thermoplastic (after polyethylene and nylon 6) to be marketed by the Kansas City, Mo., firm. Coupled with the first commercial sales of the new product, Spencer, plans to hold a series of seminars on the injection molding of polypropylene during September.

According to a Spencer spokesman, the seminars will present a comprehensive review of technical and marketing information. The one-day seminars will be held in Boston; New York; Cleveland, Ohio, and Chicago, with more than 400 injection molders and end users expected to attend.

Included in the presentation will be technical papers detailing "Resin Design and Its Importance to the Injection Molder," "The Effect of Processing Conditions and Polymer Variables on End-Product Properties," "Effect of Reground Material on Product Properties" and "Colorability."

IN SALES POST: Raymond W. Hargrove, jr., named sales manager of Valchem, a unit of United Merchants & Manufacturers, Inc. He will headquarter at the company's Langley, S.C., plant.

Walt Parker,
who can duplicate and study virtually every pulping problem in a specially equipped laboratory, says
you'll like doing business with Columbia-Southern

In the Pulp Laboratory at Columbia-Southern's Barberton, Ohio, Research Center, Walt Parker and his colleagues set up the full range of chemical situations encountered in commercial pulp mills. Thus they can study at first hand any particular questions important to mills using Columbia-Southern chemicals. Evaluation of customer formulations and methods have led to major savings and boosts in efficiency for a large number of pulp and paper producers.

When analyzing customer problems, the Pulp Laboratory engineers work closely with customer technical personnel, carefully checking every step along the way. This relationship insures *practical* results when the findings of the laboratory are put into operation in the customer's mill.

Concern that customers are getting the most efficient use of Columbia-Southern products is a principle followed throughout all departments. It is very evident in the regular activity of the Technical Service Engineers, for example, who provide consultation on unloading, storing, and handling potentially dangerous chemicals such as chlorine and caustic —to mention just one area of Technical Service responsibility.

Customer-oriented concern all along the line explains why so many leading organizations, representing all manufacturing industries, rely on Columbia-Southern for their basic chemical needs.

Anhydrous Ammonia, Barium Chemicals, Benzene Hexachloride, Calcium Chloride, Calcium Hypochlorite (Pittchlor®, Pittabs®), Carbon Tetrachloride, Caustic Potash, Caustic Soda, Chlorine, Chlorinated Benzenes, Chloro IPC, Chrome Chemicals, Hydrogen Peroxide, Muriatic Acid, Pacific Crystals, Perchlorethylene, Rubber Pigments (Calcene®, Hi-Sil®, Silene®), Soda Ash, Sodium Bicarbonate, Sodium Sulfate, Titanium Tetrachloride, Trichlorethylene

columbia | southern chemicals

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Dow Adds to Resin Line: High Density Polyethylene

Two new high density polyethylene formulations, as the first in a planned linear polyethylene series, are being put on the market by Dow Chemical Company.

Designated as Dow high density polyethylene "R600" and "R800," the materials are in production at the Midland, Mich., company's new Saginaw Bay division plant in Bay City, Mich.

Dow also produces low and intermediate density polyethylene at Freeport, Tex., and Plaquemine, La.

The new resins are designed for injection molding and film applications. Among recommended aplications are housewares, automotive components, industrial containers, toys, film overwrap and tape backing.

Dow says the density of the resins—.957—approaches the high end of the linear polyethylene range, offering optimum combination and processability.

According to the company, field evaluations and laboratory data have shown that the resins will sarink 10 to 30 percent less than other linear resins in "many applications," providing better control over warpage. Good gloss, clarity and excellent fabrication characteristics are also claimed.

Price for the new material is 35 cents a pound in truckload quantities.

Fumaric Acid Se:

—Continued from page 4

dride producers as a means of utilizing waste product streams, and avoiding effluent problems by cleaning up residue streams. The process is a comparatively simple one, involves no difficult-to-obtain equipment or chemicals, and results in high yields. The fumaric acid product meets all commercial specifications. An important feature for the small producer or one employing the process for utilizing waste streams is the adaptability of the process to plants as small as 2 million pounds per year of fumaric acid capacity, says Scientific Design.

Fumaric is related chemically to maleic acid and maleic anhydride and behaves similarly in chemical reactions, SD explains. It is, however, more stable at elevated temperatures. In polyester resins, the substitution of fumaric acid for maleic acid or maleic anhydride results in greater toughness and hardness, and increased heat resistance. Fumaric acid is also used in other molding resins, in electrical insulating materials, elastomers, plasticizers, paper sizes, inks, household enamels, and adhesives.

Drug Men's Hope

—Continued from page 3

based operations strengthen industry in this country by increasing demand for intermediate products manufactured here but used in the drugs produced abroad.

The industry's export business amounted to $277 million in 1958, out of a total output approximating $3 million.

In opening the meeting, Carl F. Oechsle, assistant Secretary of Commerce for domestic affairs assured the industry that "We are going to see that we get a larger share of the expanding world market."

The meeting was the twentieth of a weekly series arranged by Commerce to get the views of key industries on how the government can ease or eliminate restrictions originating in importing countries on US trade.

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Current Market Quotations

—Continued from page 34

White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. ..... lb. .21 - .22
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works .. lb. 5.50 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls .. lb. .22 - —
Thin, rossed, bls. ..... lb. .22 Nom.
Wintergreen oil, USP nat. northern, cns. .. lb. 6.35 - 17.50
USP, nat. southern cns ..... lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls ..... lb. .16 - .17
Witch hazel leaves, bls. ..... lb. .28 - .30
Wollastonite fine bgs., c.l., works. ton 39.50 - —
bgs., l.c.l, ex whse ..... ton 56.00 - —
Medium, bgs.. c.l., works .... ton 27.00 - —
bgs., l.c.l., ex whse. ..... ton 44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs. ..... lb. 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns ..... lb. 4.75 - 5.00

X

Xylene coaltar, indust., tanks, works:
Bethlehem, Pa. ..... gal. .29 - —
Birmingham dist. ..... gal. .29 - —
Chicago dist. ..... gal. .28½ - —
Cleveland dist. ..... gal. .29 - —
Geneva, Utah ..... gal. .29 - —
Johnstown, Pa. ..... gal. .29 - —
Lackawanna, N. Y ..... gal. .29½ - —
Xylene, coaltar, indust., tanks, works:
Lone Star, Tex. ..... gal. .27 - —
Lorain, Ohio ..... gal. .29 - —
Middletown, Ohio ..... gal. .30 - —
Minnequa, Col. ..... gal. .29 - —
Philadelphia dist. ..... gal. .29 - —
Pittsburgh dist. ..... gal. .29 - —
Sparrows Point, Md. ... gal. .29 - —
Terre Haute, Ind. ..... gal .29 - —
Youngstown, Ohio ..... gal. .29 - —
Xylene, petroleum, indust., tanks f.o.b. works:
Bayonne, N. J ..... gal. .29 - —
Baytown, Tex. ..... gal. .27 - —
Charleston, S. C. ..... gal. .29 - —
Chicago, Ill ..... gal. .28½ - —
Detroit, Mich., dlvd .... gal. .27½ - .29
Houston, Tex. ..... gal. .27 - —
Philadelphia, Pa. ..... gal. .29 - —
Providence, R. I. ..... gal. .30 - —
Sewell's Point, Va. .... gal. .28 - —
Wood River, Ill. ..... gal. .28½ - —
m-Xylene, 95%, dms., c.l., frt. alld. lb. .25 - —
dms., l.c.l., frt. alld. ..... lb. .26 - —
tanks, frt. alld. ..... lb. .23 - —
o-Xylene, dms., c.l., works ..... lb. .08 - —
dms., l.c.l., works ..... lb. .09 - —
tanks, works ..... lb. .06 - .06½
p-Xylene, dms., c.l., works ..... lb. .20 - —
dms., l.c.l., works ..... lb. .21 - —
tanks, frt. alld. ..... lb. .1645 - —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works .. lb. .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald .. lb. .33 - —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis. lb. .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis .. gal. 1.25 - —
dms., l.c.l., same basis .. gal. 1.30 - —
tanks, same basis ..... gal. 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis. gal. 1.35 - —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis .. gal. 1.40 - —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 - —
2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works .. lb. .39 - —
dms., l.c.l., same basis ..... lb. .40 - —
tanks, same basis ..... lb. .33 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. ..... lb. 2.15 - 3.05
Yeast, brewers, debittered, USP, Sacchomyces, dlvd lb. .27 - —
dry, USP, 50 Int'l B units per gram, 100-lb. dms ..... lb. .47 - —
USP, 90 Int'l B units per gram, 100-lb. dms. lb. .52 - —
USP, 200 Int'l B units per gram, 100-lb. dms. lb. .56 - —
Yeast, brewers, debittered, USP, 300 Int'l B units per gram, 100-lb. dms. lb. .60 - —
Torula, USP, dlvd. ..... lb. .18 - —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls. ..... lb. .40 - .45
Ylang-ylang oil, Bourbon, bots. .. lb. 7.00 - 22.00
extra, bots. ..... lb. 24.00 - 33.00
extra, bots. ..... lb. 24.00 - 33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 - 4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd. lb. .343 - —
bgs., smaller lots, dlvd. ..... lb. .373 - —

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Zinc acetate, NF, VIII, dms.....lb.	.53	—
Tech., dms., l.t.l., works.....lb.	.29¾	—
Zinc borate, bgs., 1,000 lbs or more, works..lb.	.25	—
bgs., less than 1,000 lbs., same basis..lb.	.27	—
Zinc chloride, NF, gran., dms...lb.	.42	—
NF, precip., powd., dms.....lb.	.26	—
Tech., soln., 50%, dms., c.l., works .100 lbs.	5.80	—
dms., l.c.l., works..100 lbs.	6.40	—
tanks, works .....100 lbs.	5.15	—
fused, dms., c.l., works..100 lbs.	10.70	—
dms., l.c.l., works .100lbs.	11.20	—
gran., fib. dms., c.l., works, 100 lbs.	11.45	—
fib. dms., l.c.l., works..100 lbs.	11.95	—
Zinc chromate bbls., dlvd. .....lb.	.29	—
Basic bbls., dlvd. .....lb.	.34	—
Zinc cyanide dms. 1,000-lb. lots or more, works..lb.	.55	—
dms., smaller lots, works.....lb.	.57	—
Zinc dust coml. bbls., c.l., works, lb.	.17	—
Pigment, bbls., c.l., works....lb.	.16½	—
bbls., l.c.l., works.....lb.	.18¼	—
Zinc fluoride, bbls., works.....lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld..lb.	.21½	—
dms., l.c.l., frt. alld. .....lb.	.23½	—
Zinc metal prime western, slabs, E. St. Louis..lb	.13	—
Prime western slabs, New York, lb.	.13½	—
Zinc naphthenate liq. 8% Zn., dms., frt. alld..lb.	.27	—
10% Zn., dms., frt. alld. ....lb.	.33	—
Zinc nitrate tech. cryst., bbls., works lb.	.20	—
Zinc oxide, pigment, American process, lead-free bgs., c.l., frt. alld lb	.14½	—
bgs., l.c.l., 10 tons or more, same basis lb.	.15	—
bgs., l.c.l., smaller lots, same basis lb.	.15½	—
leaded, 35% bgs, c.l., mills, frt. alld lb.	.15⅜	—
bgs., l.c.l., 10 tons or more, same basis lb.	.15⅞	—
leaded 50% bgs., c.l., same basis..lb.	.15¾	—

Non-caking

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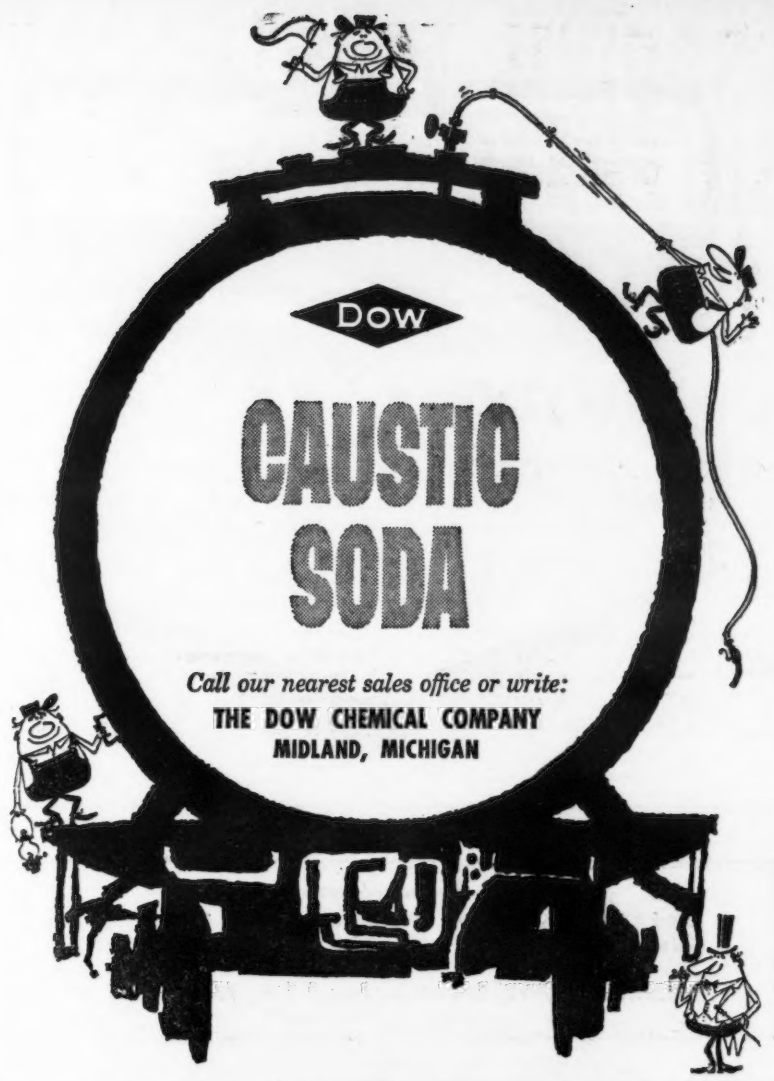
Zinc oxide pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis..lb.	.16¼	—
USP, gran., dms. .....lb.	.26	—
French process, green seal, bgs., c.l., mills, frt alld..lb.	.16¼	—
bgs., l.c.l., 10 tons or more, same basis..lb.	16¾	—
bgs., l.c.l, smaller lots, same basis..lb.	.17¼	—
red seal, bgs., c.l., same basis. lb.	.15¾	—
bgs., l.c.l., 10 tons or more, same basis..lb.	.16¼	—
bgs., l.c.l, smaller lots, same basis..lb.	16¾	—
white seal, bgs., c.l., same basis..lb	.16¾	—
bgs., l.c.l., 10 tons or more, same basis..lb	.17¼	—
bgs., l.c.l., smaller lots, same basis..lb	.17¾	—
Zinc oxide, USP dms., c.l., frt. alld. lb.	.18¼	—
dms., l.c.l., 10 tons or more, same basis..lb	.18¾	—
dms., l.c.l., smaller lots, same basis..lb.	.19¼	—
Zinc phenolsulfonate, NF, gran., dms..lb.	.45	.46
NF, powd., dms. .....lb.	.48	.49
Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld..lb.	.40¼	—
Zinc silicofluoride, dms., works..lb.	.12½	.14
Zinc stearate, tech., USP, ctns., c.l. lb.	.41	—
ctns., l.c.l. .....lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E. 100 lbs.	8.75	—
bgs., l.c.l., dlvd. E..100 lbs.	9.75	—
Zinc sulfate in bbls 40c. higher.		
Zinc sulfide, pure, bgs., c.l., dlvd lb.	.2530	—
Zinc undecylenate, dms. .....lb.	2.00	—
Zinc, yellow (see Zinc chromate).		
Zinc-ammonium chloride, bgs., c.l., works..100 lbs.	10.25	—
bbls., c.l., works.....100 lbs.	10.85	—
bbls., l.c.l., works.....100 lbs.	11.35	—
Zinc formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld..lb.	.26	—
Normal, 250-lb. dms., frt. alld..lb.	.52	—
Zircon (G) gran., bgs., c.l., works. lb.	.03½	—
bgs., 5 tons to c.l., works...lb.	.03⅝	—
bgs., 1 ton to 9,999-lb. lots, works..lb.	.04	—
bgs., smaller lots, works....lb.	.06½	—
Zircon (G), milled, bgs., c.l., works. lb.	.04½	—
bgs., 5 tons to c.l., works....lb.	.04⅝	—
bgs., 1 ton to 9,999-lb. lots, works..lb.	.04⅝	—
bgs., 500-1,999-lb. lots, works..lb.	.07½	—
Zircon (G) in barrels 1c. higher.		
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works..lb.	.23	—
Zirconium hydride, powd., electronic grade, dms., works..lb.	14.00	-15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works...lb.	1.50	—
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works..lb.	.48½	—
bgs., smaller lots, works...lb.	.51	—
milled, bgs., c.l., works.....lb.	.62	—
bgs., 5-ton lots, works.....lb.	.62½	—
bgs., 1-ton to 9,999-lb. lots, works..lb.	.63½	—
bgs., 500 to 1,999-lb. lots, works..lb.	.64	—
bgs., smaller lots, works....lb.	.66	—
Zirconium Oxide, Glass polishing grade, 94-97% ZrO_2, bgs., works.....lb.	.55	.65
Opacifier grade, 85-90% ZrO_2, bgs., lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs..lb.	.62	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works.....lb.	.37½	—
bgs., l.c.l., smaller lots, same basis..lb.	.16⅝	—



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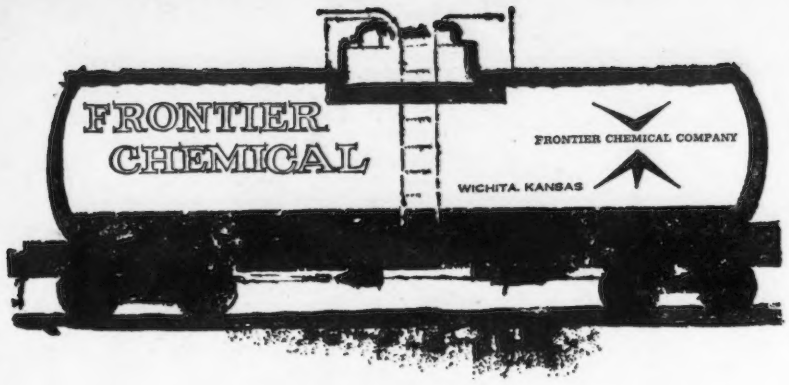

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Color Producers Must Prove Safety Now

—Continued from page 3

der on the fourteen colors moot, it was added, the hearings nevertheless served a useful purpose because the evidence "established that the colors are safe for drugs and cosmetic use"—certainly as safe for use as is the use in foods of pepper, potassium acid tartrate, sodium hydroxide (lye), sulfuric acid, tartaric acid, vitamin A, vitamin D, sulfur dioxide, ginger and mustard.

The statement noted that these products have been cleared by FDA as "generally recognized" safe food additives, but said that if these products had been fed to rats at the same test levels as were the lipstick colors they would have been shown to be toxic or harmful.

Burden on Suppliers

Like the food additives law and the pesticide control law, the new color additives law places the burden on the suppliers of color additives to prove to the satisfaction of government scientists that the colors offered for use in foods, drugs and cosmetics are safe. No longer is there any distinction to be made in the law between coaltar colors and other colors.

However, there is this one important difference from the old law. Any color—whether of coaltar origin or not—which is capable of producing cancer in man or animal is automatically barred from use. This is under the Delaney Anti-Cancer clause which industry tried, but failed, to get modified.

Scientific judgment is allowed to play a role in this situation only insofar as determining whether a color additive is, in fact, a carcinogen and thereby falls within the scope of the Delaney clause.

The new color additives law retains the approach of the present coaltar color provisions in providing for comprehensive lists of colors, instead of attempting to carve out an exception from listing for colors "generally recognized" by experts as safe for use.

This takes off the government the burden of proving that an additive is not generally recognized as safe—as is the case in the food additives law.

Exemptions Permited

While providing for certification of batches of listed colors, as existing law does for coaltar colors, the law permits the Secretary of Health Education & Welfare to grant exemptions from the certification requirement when not necessary for the protection of public health.

The law is effective immediately. However, in order to allow on an interim basis, for a reasonable period, the use of commercially established color additives to the extent consistent with public health, the law provides for the provisional listing of color additives and their certification.

The "commercially established" color additives falling under these transitional provisions are:

(a) Those coaltar colors of which a batch or batches were actually certified prior to the date of the new law (this is the provision that would appear to permit continued use of the fourteen disputed lipstick colors).

(b) Those non-coaltar colors, and synthetic beta-carotene, which were commercially used or sold prior to the date of signing the law for use in foods, drugs, or cosmetics.

Provisional listings are to be subject to appropriate temporary tolerances and other conditions of use as deemed necessary for protection of public health during the period of provisional listing. The law permits establishment of a zero tolerance or removal from the provisional list at any time during this transitional period when the protection of the public health so requires.

A provisional listing is to be automatic except in the case of a coaltar color which had been "delisted" prior to date of enactment of the law. These colors can be provisionally listed under the transitional provisions only upon request to the HEW Secretary.

In general a provisional listing will determine no later than Jaunary 12, 1963, or two and a half years from the date of enactment. However, where necessary to complete the scientific testing required for a particular additive, the secretary can extend this period with the objective of completing the tests as soon as practicable.

Methyl Isoamyl Ketone Available from Carbide

Union Carbide Chemicals Company is now marketing methyl isoamyl ketone in commercial quantities from its South Carleston, W. Va., plant.

Priced at 17½ cents a pound in tank-car lots, the solvent, Carbide says, is the most economical and high-boiling one available for vinyl and nitrocellulose lacquers.

The company also believes that a higher dilution ratio as compared with that of other high-boiling solvents provides added savings in formulating costs. Methyl isoamyl ketone contributes lower viscosities, has a high relative evaporation rate, and offers excellent blush resistance, the Union Carbide Corporation division adds.

Parsons-Plymouth Appoints

M. W. Parsons-Plymouth, Inc., New York, manufacturer of metallic stereates and fatty acid esters, has appointed Edward B. Trombly, jr., as vice-president in charge of sales. Philip D. Reed, jr., continues as vice-president in charge of operations.

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OPD Reports From Europe

Common Market, EFTA: Both Slug

—Continued from page 7

sate for the 20 percent tariff reduction in favor of EFTA suppliers. While this move can be effective for the first stage, it clearly cannot be continued through the second and third 20 percent duty cuts.

In general, the member nations of the EFTA import much more from Common Market countries, particularly Germany, than they export in return. Sweden, for example, shipped Germany $332 million of goods in 1959 against its imports of $540 million, and a big part of that export figure was probably iron ore.

EFTA Imports Exceed Exports

And overall, the EFTA, excluding Britain, imported $4.1 billion from the Common Market, exporting back $2.5 billion. Britain imported $1.6 billion from the Common Market and exported $1.4 billion to the six-nation group. The Common Market took $39 million of British chemicals in the first quarter of 1960, against UK chemical exports of $22.3 million to EFTA countries.

A key market for Britain is the Netherlands which has taken not only basic industrial materials such as chemicals from the UK, but also consumer durables and autos—with British products priced competitively with German. In 1959, the Dutch were Britain's best chemical customers in Europe, taking a total of $33.5 million UK goods.

As a low tariff member of the Common Market, the creation of the common external tariff for the six due to start January 1, 1961, will raise the duties on British goods at the same time duties on German goods are going down toward zero.

Any prolonged trend in either trade bloc of shifting prefernces from present suppliers to bloc colleagues would have a large dislocating effect on the whole of European trade. As a means of driving a bargain with the Common Market, some trade observers have recommended that the Seven follow a deliberate policy of shifting their imports to fellow EFTA members and the US. This, however, is a tactic that can cut both ways.

There are signs that trade started to flow in the bloc channels even before the July 1 tariff cuts. There have been reports that some German exports in the first quarter of this year were beginning to fall off in EFTA countries.

As an attempt to prevent complete breakdown in traditional patterns, the chemical industries of both the Common Market countries and the EFTA nations last year organized a joint industrial association that makes no distinction between the trade blocs.

The metal goods industries of the two areas have recently formed a similar association. Both groups have as their primary aim the establishment of contacts between the two trade areas and the prevention of an outright trade war.

Polio Vaccine

—Continued from page 4

cause it is possible to concentrate a more potent dose in a smaller volume.

• The product contains no serologically detectable monkey kidney tissue, a foreign protein that might produce allergic reactions on repeated injections.

In the manufacture of "Purivax," Merck says, the polio viruses that go into the vaccine are purified and concentrated and this is the key to its greater effectiveness. Previously, there had been no known way, suitable for large-scale manufacture, of separating the viruses from the monkey kidney cells, on which they are grown.

The product will be distributed immediately to areas—principally in the south and southeast—where the incidence of polio has been especially high in past years. National distribution is anticipated for this fall, says the producer.

Gen'l Chemical 'Savvy'

—Continued from page 5

drocarbons, which it markets under the tradename "Genetron."

Miguel G. Arce, president of Celulosa y Derivados, reports that the plants are expected to be completed in the early part of next year.

They will reportedly have sufficient capacity not only to supply current and estimated future needs of Mexico, but also to supply these products under Mexican label throughout Latin America. None of these chemicals is currently produced in Mexico except for hydrofluoric acid which is made in limited quantities.

Sr. Arce emphasizes that all of the raw materials, utilities, and labor for the new plants will be supplied from the Monterrey area or from other Mexican sources.

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Methanol US Capacity Rising, But So Is Overseas Potential as Expansions Mount

OPD 'Depth' Report on Methanol

—*Continued from page 5*

year in 1958 to 142,300 metric tons this year. Observers say it's logical to assume that more capacity will be added. How much is indefinite at this time.

While all this has been going on, US producers have been giving domestic markets a hard look. Of present producers, the following is known:

• Allied Chemical Corporation is boosting capacity from 20 million to 30 million gallons per year at South Point, Ohio.

• Celanese Corporation of America tacked on a 5-million-gallon expansion at its Bishop, Tex., plant in 1959.

• Commercial Solvents Corporation increased capacity moderately in mid-1959.

• E. I. duPont de Nemours & Co. has been quietly easing up capacity at its Belle, W. Va., location to 20 million gallons per annum. and is reported considering a 25-to-30-million-gallon expansion.

Escambia Expanding Plant

• Escambia Chemical Corporation is now putting the finishing touches on an expansion which raises its Pensacola, Fla., plant capacity from 16 million to 20 million gallons per year.

• Hercules Powder Company has moved up its start-up date for an 8-million-gallon-a-year plant in Hercules, Calif. Hoped-for operation date is now January 1, 1961.

• Monsanto-Heyden joint methanol plant at Texas City, Tex., now rated at 25 million gallons per year, is being given close scrutiny. Some reports have it that the plant is on the verge of a 5-to-10-million-gallon expansion.

• Rohm & Haas Company, very reticent to talk about its plans at any time, nonetheless informed its stockholders that it had allotted money for methanol expansion. Best guess: a 5-million-gallon-per-year boost.

Spencer Chemical Company's plant is still at 8.5 million gallons a year, and no imminent changes are foreseen. Things also appear quiet at Union Carbide Corporation, although the possibility for expansion always exists.

Among potential new producers of methanol there is one strong candidate and a few other less likely prospects. It's nearly a certainty that Borden Chemical Company will be in methanol by 1962.

'No Comment': Borden

The company has no comment whatsoever to make on this report, but the trade is rapidly putting two and two together. For one thing, Borden's captive requirements for methanol, now in excess of 15 million gallons annually, could climb as high as an estimated 20 million gallons by 1963.

For another, Borden's teaming with United States Rubber Company in a venture to produce acetylene and vinyl chloride—probably in the Baton Rouge, La., area—is a sure bet for methanol operation.

Monochem, Inc., the jointly-owned company, is to produce 80 million pounds of acetylene, as well as vinyl chloride monomer. It's thought that Borden Chemical will get all the acetylene—and with it enough synthesis gas byproduct to produce 25 million gallons of methanol per year.

Hence prospects are more than likely that by 1962 the Borden Company division will be putting up a methanol plant as a satellite of the Monochem operation, with a capacity somewhere in the neighborhood of 20 million to 25 million gallons per year.

Then, too, Houston Chemical Corporation, bustling newcomer to the chemical market, has been rumored to be looking over the idle methanol installation at Morgantown, W. Va.

Built by duPont for the government in World War II days, the plant got its synthesis gas from coking operations and was capable of producing as much as 48 million gallons per year of methanol.

Operated for a time after the war by Olin Mathieson Chemical Corporation, the plant never worked up to its full potential, and when Olin gave up on it in mid-1958, capacity was rated at 18 million gallons annually.

The plant nestles today, an apparent white elephant, in the hills of West Virginia, its basis of operations—coal—judged uneconomic, and its location, reportedly disadvantageous.

But the equipment is still there, and every time the methanol market begins to look a bit stronger, rumors fly. It's pointed out that duPont's Belle plant, similar to the Morgantown operation initially, has been switched to natural gas. This could be done, it's said, with Morgantown.

Who's Interested in Morgantown?

Other companies than Houston Chemical have been interested at one time or another in Morgantown since Olin gave up. They include General Dynamics Corporation and, some sources insist, even duPont.

Other consumers of methanol who have taken stock of the situation include American Cyanamid Company, Hooker Chemical Corporation (an estimated 7-million-gallon consumer) and Olin. Trade observers feel it's not likely that any one of the three will announce plans to get into the market in the near future.

Current domestic capacity, 330.5 million gallons a year, is expected to rise to 353.5 million gallons in 1961, and with the entrance of Borden into the market almost a certainty, US potential could increase to as high as 375-380 million gallons during 1962.

At the same time, producers forecast a 350-million-gallon demand by 1965. Based on this consumption forecast, and the assumption that the industry will be operating at close to 90 percent of capacity, a potential of around 390 million gallons will be necessary. Hence, capacity in 1962 could be about two years ahead of demand.

Industry observers point out that this is nothing to be upset about, since such lead times are common. However, in 1962 a number of factors will come into play:

• Foreign capacity will have been increased by 100 million gallons, and our export busines, now nearly 18 million gallons, could nearly vanish as a result.

• Consumption of methanol for antidetonant injection (ADI) fluid in aircraft could shrink considerably from its present estimated level of 21 million gallons per year. It's thought that by 1965, only a third of that total will be consumed as ADI fluid.

• Antifreeze use is expected to drop from 1959's 10-million-gallon figure to as low as 5 million gallons annually by 1962, owing to a number of factors including an all-out push to cover the market with ethylene glycol antifreeze.

Theoretical Demand Loss

Overall, losses in the above end-uses for methanol by 1965 could add up to as much as 35 million gallons annually, some trade sources believe.

To compensate for this possible decline, chemical end-uses for methanol will have to take up the slack—and more—if consumption is to reach the anticipated 350-million-gallon mark five years hence.

The industry believes this year's consumption will tell the tale as to whether the '65 level is achieved. If chemical business holds up during the latter part of 1960, in all probability 1959 levels will be surpassed and methanol business will be given impetus well into 1961. Here are some of the prospects:

Formaldehyde — 1959 total output was 1.7 billion pounds. Output for the first third of this year was 574 million pounds, compared with 556.5 million pounds for the first third of 1959. Even so, an operating rate of 578.6 million pounds per third is required in 1960 if 1959 levels are to be equaled.

Trade sources report moderately good formaldehyde demand now, but concede that a whopping fourth quarter is essential if the 1959 record is to be broken.

Despite large-volume output, the formaldehyde industry operated at somewhat less than 75 percent of rated capacity in 1959. Further, Celanese added 50 million pounds last year, and Borden, Allied and Hercules plan to up the ante by some 165 million pounds in 1961.

Optimism in formaldehyde is based largely on resurgence of such old standbys as urea-formaldehyde resins and phenolics. A real comer is use of formaldehyde in agriculture, however.

In 1958, an estimated 10,000 tons of urea-formaldehyde slow-release nitrogen fertilizers were consumed. It's believed that 1959 saw 25 million pounds of formaldehyde consumed in fertilizer. This year, formaldehyde use could top 50 million pounds.

A key to growth of this material is that it will not burn out cover crops, owing to the slow release of nitrogen which is inhibited by the formaldehyde contained.

With expected increasing demands for grassy plots, such as those presumably to be encountered in the federal highway development program, urea-formaldehyde fertilizer consumption is expected to soar dramatically.

Another recent use—duPont's "Delrin" acetal resin—is also expected to climb. How fast? How far? Nobody seems to know at present. It's estimated that if duPont operates its Parkersburg, W. Va., acetal plant at capacity, it would consume the equivalent of 30 million to 36 million pounds annually of formaldehyde. There's been no indication of that so far.

Established uses for formaldehyde seem to be doing well at present. Example: Pentaerythritol output during the first third was 22.4 million pounds, and if this rate is maintained, production will zoom handily past last year's total of 63.6 million pounds.

Hexamethylenetetramine output is running ahead of last year's levels as well. Other interesting—but less-publicized—uses include:

• An estimated use of 16 million pounds of formaldehyde in the manufacture of trimethylolpropane in 1959. This figure might triple by 1965.

• Consumption of an estimated 135 mil-

—*Continued on page 46*

NEW LOOK AT SYNTHETIC METHANOL CAPACITY

Moderate Increases Pushing Potential Higher

Producer	Location	1960	1961
		(Millions of Gallons)	
Allied	South Point, Ohio	20	30
Celanese	Bishop, Tex.	20	20
CSC	Sterlington, La.	45	45
DuPont	Belle, W. Va.	20	20
DuPont	Orange, Tex.	100	100
Escambia	Pensacola, Fla.	20	20
Hercules	Louisiana, Mo.	8	8
Hercules	Hercules, Calif.	—	8
Monsanto-Heyden	Texas City, Tex.	25	25
Rohm & Haas	Houston, Tex.	10	15
Spencer	Military, Kan.	8.5	8.5
Union Carbide	South Charleston, W. Va.	12	12
Union Carbide	Texas City, Tex.	42	42
Total		330.5	353.5

Idle capacity: Morgantown, W. Va., 18 million gallons per year.

*Formaldehyde Capacities**

Allied	South Point, Ohio	200
Borden	Bainbridge, N. Y.	36
Borden	Demopolis, Ala.	40
Borden	Fayetteville, N. C.	40
Borden	Kent, Wash.	36
Borden	Springfield, Ore.	36
Borden	Fremont, Calif.	(1)
Celanese	Bishop, Tex.	350
CSC	Agnew, Calif.	30
CSC	Sterlington, La.	40
DuPont	Belle, W. Va.	235
DuPont	Perth Amboy, N. J.	150
DuPont	Toledo, Ohio	80
Hercules	Louisiana, Mo.	100
Hercules	Hercules, Calif.	(2)
Heyden Newport	Fords, N. J.	60
Heyden Newport	Garfield, N. J.	175
Hooker	N. Tonawanda, N. Y.	90
Kay-Fries	W. Haverstraw, N. Y.	15
Monsanto	Springfield, Mass.	100
Reichhold	Charlotte, N. C.	30
Reichhold	Hampton, S. C.	46
Reichhold	Tacoma, Wash.	40
Reichhold	Tuscaloosa, Ala.	30
Reichhold	Kansas City, Kan.	36
Rohm & Haas	Bridesburg, Pa.	25
Rohm & Haas	Bristol, Pa.	25
Spencer	Calumet City, Ill.	53
Trojan Powder	Allentown, Pa.	40
Union Carbide	Bound Brook, N. J.	150
Total		2,348

* Millions of pounds. (1) 45 million pounds, 1961. (2) 50 million pounds, 1961. In addition, Allied is adding 70 million pounds to capacity at South Point.

Formaldehyde Production

1965	*2.0 billion lbs.
1960	*1.8 billion lbs.
1959	1.7 billion lbs.
1958	1.4 billion lbs.
1957	1.4 billion lbs.
1956	1.4 billion lbs.
1955	1.3 billion lbs.
1954	1.0 billion lbs.

* Industry estimate. Source: Tariff Commission.

Aliphatic Organics

Prices for glacial acrylic acid were reduced last week by a major producer. Under the new schedule, which is retroactive to July 5, the chemical is listed at 40 cents a pound in bulk, 42½ cents a pound in drums, carloads or truckloads, and 43½ cents a pound in smaller drum lots, f.o.b. plant, freight allowed and prepaid—a combination of shipping terms which in all but the traffic man's book add up to "delivered." Previously, glacial acrylic acid was quoted at 57 cents a pound in carloads, and 58 cents in smaller quantities.

A competitive move, the sharp price reduction followed the introduction of a low-cost technical acrylic acid a fortnight ago. Described as 95 percent pure —versus 98 percent for the glacial—this material is available in either of two grades: polymerization or esterification. It's understood, however, that the glacial can be used for either purpose.

An aqueous polymerization grade acrylic acid, also classified as technical, and assaying at 30 to 55 percent acid, has been offered for some years. Prices have just been reduced.

Methyl isoamyl ketone is now available in commercial quantities from a leading manufacturer of chemical solvents. Priced at 17½ cents a pound delivered in tankcar lots, it is reputed to be the most economical, high-boiling solvent (145.4 degrees C.) for vinyl and nitrocellulose lacquers.

The increasing popularity of synthetic fibers, a source of joy to the chemical manufacturers who supply the raw materials, has spurred a campaign to "modernize" wool. How successful this will be is a question that the woolen people themselves are probably loath to think about. Obviously, they're up against it.

Per capita consumption of wool has fallen nearly thirty percent during the last decade, according to the Textile Economics Bureau, while consumption of the newer synthetics such as nylon, dacron, and orlon has quadrupled. In the women's sweater field, for example, washable acrylic fibers that effectively simulate the look and feel of wool now command two-thirds of the market, reportedly—the same relative position wool held as recently as 1953.

Toward updating wool, a new process was recently developed in Australia to put permanent creases into men's woolen trousers. Called the "Si-Ro-Set" process, it is available to clothing manufacturers around the world. At the same time, new techniques are being developed that will likely further enhance the marketing advantages of synthetic fibers. One such, announced a fortnight ago, is a new line of dyes for true and modified acrylic fibers that require no retarder in the dye bath. Besides being more economical, these new dyes result in a good build-up in the heavier tones and richer colors. This is particularly advantageous since the range of colors of some synthetic and synthetic-wool blends has been quite narrow up till now.

Acetone—Like exports of organic chemicals generally, outshipments of acetone declined in May from the April level. The figures: 635,254 pounds versus 716,433.

May exports, valued at $52,683, went to: Mexico 386,813 pounds at $29,446; Columbia 104,898 pounds at $9,942; Cuba 69,613 pounds at $5,725; the Philippine Republic 27,150 at $2,688; and Venezuela 21,480 pounds at $2,040.

On the domestic scene, all is reasonably quiet following the price reduction of ½-cent per pound, which came like a bolt out of the blue the last week in June. This, of course, went industry-wide shortly after it was initiated.

In retrospect, some people say that the price cut was a rather foolish measure since it will not reduce competition a fraction and only serve to narrow the profit margin further.

In addition to price sniping, which apparently had become quite common, the reduction was thought to reflect the greater availability of "cumene" acetone, due to increased production of phenol, as well as the market debut of a new producer, formerly a large merchant consumer.

Acrylic Acid—New and appreciably lower prices were announced last week for glacial acrylic acid. Under the new schedule, which is retroactive to July 5, the chemical is listed at 40c. a pound in bulk; 42½c. a pound in drums, carloads or truckloads; and 43½c. a pound in smaller drum lots.

Shipping terms—written like this: f.o.b. plant, freight allowed and prepaid—add up to this: delivered.

Behind the reduction, which amounted to 14½ cents a pound on a carload, was the introduction a fortnight ago of a new, low-cost technical acrylic acid by a firm new to the field. This material was said to be of two types, polymerization and esterification, but as close as can be determined, the glacial acid, now competitively priced, can be used for either purpose.

In fact, the glacial has a slight edge on the polymerization grade. While prices for both are the same, glacial is quoted on a delivered basis, the latter f.o.b. shipping point.

Butyl Acetate—Our cold-war foe, the USSR, has apparently found a US firm ready and willing to supply some of its butyl acetate requirement. In May, of the total quantity of the solvent exported —5,411,062 pounds (value: $664,874, according to the Customs)—the Soviets received 2,416,660 pounds for which they paid out $321,320, appreciably more than a larger buyer, The Netherlands, who got 2,531,030 pounds of the chemical for $272,086.

The remainder, 102,961 pounds, was purchased by Mexico for $14,495.

Butyl Alcohol—The USSR is also buying butyl alcohol from the US. Purchases ran to 977,498 pounds in May and for this quantity, the value as reported by Customs, was $131,449.

Larger quantities, however, went to a Russian satellite, Poland (1,088,499 pounds at $146,056), and Italy (2,077,310 pounds at $249,277). The remainder was taken by the United Kingdom (100,686 pounds at $15,102) and Mexico (61,590 pounds at $9,370).

Carbon Tetrachloride—May imports of carbon tetrachloride totaled 238,600 pounds, and were valued at $14,729 and dutied at $2,027. Shipping here were Canada (139,600 pounds, valued at $8,376 and dutied at $1,186), and Italy (99,000 pounds, valued at $6,353 and dutied at $841).

Never large, exports in May were 21,934 pounds and were valued, according to the

—*Continued on page 75*

Price Trends

Advanced
None

Reduced
Acrylic acid, glacial, c.l., 14½c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	July 17, 1959
132.08	132.22	132.19	130.55

For Current Prices see page 11

Aliphatics Foreign Trade: May

Exports of selected industrial aliphatic organics for the months of April and May, as reported by the Bureau of Census, were as follows:

		May	April
Acetone	lbs.	635,254	716,433
Alcohols, including, glycols, n.e.c.	lbs.	8,229,945	15,109,261
Butyl acetate	lbs.	5,411,062	2,492,413
Butyl alcohol	lbs.	4,466,699	6,802,944
Ethyl alcohol and methylated spirits	gals.	2,050	5,604
Ethylene glycol	lbs.	15,653,569	1,609,758
Formaldehyde, 40 percent solution	lbs.	524,450	2,427,375
Glycerine, crude and refined	lbs.	1,148,931	958,358
Methyl alcohol	gals.	1,588,653	2,727,430
Propyl alcohol	lbs.	325,007	456,917

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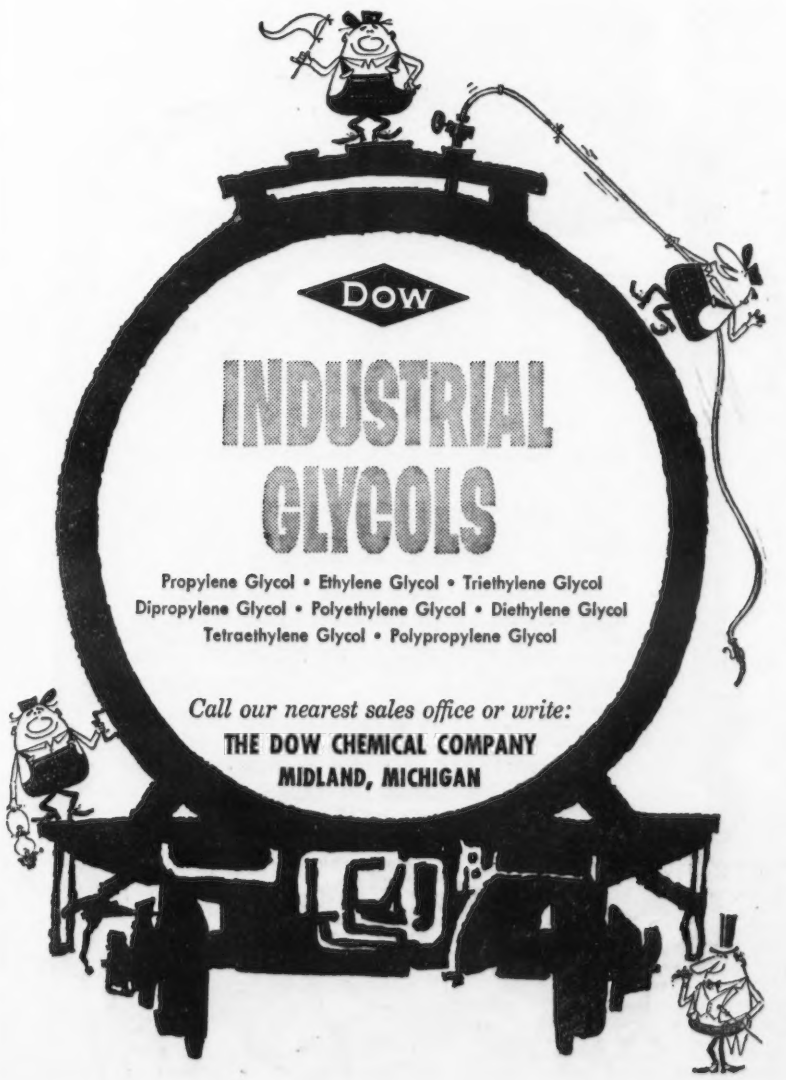
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Methanol Capacity Rising Here and Overseas

OPD 'Depth' Report on Methanol

—*Continued from page 44*

lion pounds of formaldehyde in paraformaldehyde manufacture in 1959—up from 100 million in 1958.

Methacrylates—Use of methanol in methacrylates will easily exceed 12 million gallons this year, with methyl methacrylate taking somewhat more than 10 million gallons.

With Rohm & Haas' announcement that it will produce methacrylates at Louisville, Ky., and with optimistic predictions from all quarters concerning the rise of methacrylates during the sixties, corresponding demand for methanol could rise to 15-17 million gallons by 1965.

Methylamines—Growth looks promising, and even if demand for unsymmetrical dimethylhydrazine does not materialize for use in rocket fuel during the early sixties, consumption of methanol could rise to 11.5 million gallons annually by 1965. Commercial Solvents has just doubled capacity of its Terre Haute, Ind., methylamines plant (OPD, 7/11/60).

Dimethyl Terephthalate—This material takes a much larger amount of methanol than has generally been guessed. Reason is heavy losses in recycling. It's estimated that DMT takes 6 million gallons methanol per year at present. Use will be tied directly to the future of polyester fibers.

Methyl Halides, including methyl and methylene chloride, methyl bromide and chloroform are believed to use up about 5 million gallons of methanol a year at present.

A big question mark: tetramethyl lead. It's an "iffy" situation. Consumption of methanol in this field could amount to 1-2 million gallons by 1962, producers feel, "if" all methyl chloride is made from methanol (which it is not) and "if" gasoline companies switch from tetraethyl lead and "if" gasoline antiknock additives show an increase in volume per gallon (reformate gasoline has held quantity-per-gallon ratio back).

Miscellaneous chemical uses for methanol are legion. In 1960, methyl ethers are expected to consume 2 million gallons; phosphate esters (chiefly methyl parathion) could eat up a million gallons, as could tallow and other fatty alcohol production.

One of the more promising uses for methanol in this small-volume category at present is polyvinyl alcohol (200,000 gallons per year), which could take off to a considerable volume during the next five years.

Solvent applications are myriad and in some cases untraceable. It's tough to arrive at a figure for consumption in nail polish or for lighter fluid. Duplicating fluid is a large-volume application; one customer alone reportedly takes as much as 800,000 gallons a year.

But no matter how many mimeos are run off during the next five years, the industry is agreed that the future of methanol is dependent largely on formaldehyde growth.

It's also conceded that the last couple of years have been unusual as far as methanol is concerned: 1959 output was more than 10 percent over the previous year; 1960 production could rise about 8 percent over 1959.

Historically, methanol growth has run along at a 5-6 percent per year clip—about what industry considers satisfactory for a "mature" chemical. A question for the future: How "mature" is formaldehyde?

METHANOL FOREIGN CAPACITIES

	1960 (Millions of Gallons)	1962 (Millions of Gallons)
West Germany	134	156
Japan	48	48
United Kingdom	26	63
East Germany	24	30
France	16	36
Italy	15	20
Canada	10	10
Brazil	7	7
Poland	6	7
Spain	3	3
Austria	3	3
Czechoslovakia	2	3
Argentina	1	1
Mexico	—	7
Bulgaria	—	5
Other*	1	1
TOTAL	296	400

*Includes Netherlands, 300,000 gals./year; Norway, 100,000 gals./year, and miscellaneous natural and synthetic production. Excludes USSR and Red China.

Methanol: Some Small Users

Chlorine Dioxide	1.0 million gals.
Methyl Parathion	1.0 million gals.
Fatty Alcohols	1.0 million gals.
N,N-Dimethylaniline	0.7 million gals.
Dimethyl Phthalate	0.6 million gals.
Methyl Salicylate	0.6 million gals.
Sodium Methylate	0.4 million gals.
Methyl Acetate	0.2 million gals.
Polyvinyl Alcohol	0.2 million gals.

Want a Methanol Reprint?

OPD's special "in-depth" report on methanol is being reprinted and will be available shortly. Copies may be obtained at 35 cents each (discounts on quantities of a hundred) from OIL, PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7.

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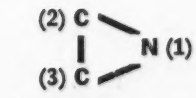

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Trade Name Chemicals & Specialties

Last week the Rohm and Haas Company changed their system of pricing on **Rhozyme T-22 concentrate.** There was no quality change in product or actual price change involved per enzyme activity factor. The new method of pricing, compared to the old, simply cuts the activity factor in half and doubles the selling price, ending up with exactly the same consumer cost for active enzyme. In addition, the firm now offers a standardized **Rhozyme T-22** packaged in 150 pound drums at 80 cents per pound, and in smaller quantities at $1 per pound, f.o.b. producing plant.

Enzymes for the stabilization and chill proofing of beer, have undergone steady technological improvement over the years, and work efficiently despite brewing materials used and brewing methods. They have no effect on either taste or foam characteristics of the brew.

Optical brighteners are colorless dyes, having no hiding power. They absorb ultraviolet light rays from the sunlight, and emit the absorbed energy in the visible blue range of light, thus increasing the brightness of the treated material and offsetting the effects of slight yellowish cast, natural to the cloth or other material.

They are effective in daylight, and not under artificial light which lacks ultraviolet components. As good as optical brighteners are, they should not be abused by expecting too much from them. They will not correct discolorations arising from overbluing cloth, or from grayish discoloration effects. They will not cover up spots, and in themselves have no bleaching action.

Cloth, for example, must be bleached and uniformly processed, then the optical brightener itself must be applied with the same uniform pretreatment, uniform distribution of whitener, retarded absorption by the fiber to obtain leveling, and increased exhaustion by the addition of salts etc., all in accordance with good dyeing practices.

Organic oxidizing agents such as benzoyl peroxide finds wide industry application as polymerization catalysts for monomers of various sorts, the bleaching of oils, fats, and waxes without the subsequent necessity of filtration, as an acetate burn-out agent in textiles, as an intermediate in organic syntheses, and as a reactant in the selective halogenation of the double bonds in olefinic hydrocarbons.

Enzymes

Rohm & Haas Company has changed its method of selling **Rhozyme T-22 Concentrate.** Previously this material had been sold on the basis of an activity factor, which varied from lot to lot. Under the old method of pricing, **Rhozyme T-22** was sold in drums at 40 cents per pound multiplied by the activity factor of the particular drum shipment.

The new present basis on which this product is sold differs from the former selling basis in that the activity factor is cut in half and the selling price doubled. It should be noted that this change in selling basis involves no change in strength or quality of product, and no change in final enzyme activity price.

Rohm & Haas found it desirable to bring out this enzyme in a standardized form under the name of **Rhozyme T-22,** because of the growing demand for this enzyme in such applications as grease trap cleaners and septic tank activators. The standardized **Rhozyme T-22** is priced in 150 pound drums at 80 cents per pound, and in smaller quantities at $1 per pound, f.o.b. producing plant.

Thus for an equivalent quantity of enzyme activity, the price of **Rhozyme T-22** and **Rhozyme T-22** concentrate is identical.

Collupulin is the trade name of an enzyme product made by Wallerstein Company for the exclusive purpose of chill-proofing and stabilizing beer. According to Wallerstein, the overwhelming majority of beers and ales produced in the United States, and much of the beers produced in the world, are treated by the **Collupulin** process.

What **Collupulin** does is split certain complex beer proteins into smaller units, thus removing the main cause of chill haze. The protective colloid action of **Collupulin** renders the beer less sensitive to influences which tend to upset the colloidal equilibrium of the beer and thus stabilizes it.

Despite variations in brewing materials and in brewing methods, the makers say that **Collupulin** can be depended upon for uniform and effective results. The use of this enzyme product has no effect on either taste or foaming characteristics of beer or ale, and is said to be equally effective for top fermented ale or bottom fermented lager.

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section, write OIL, PAINT AND DRUG REPORTER'S Technical Editor, 30 Church street, New York 7.

Optical Brighteners

In modern textile technology, the whiteness and brightness of finished goods, or of laundered white goods, has become an important factor of customer acceptance. This is because of the added sales appeal and the customer preference for such goods which has more recenty become an outright demand. Anything that does not meet these demands is considered off standard.

Over the past many years, getting rid of the yellowish cast in textiles was accomplished by chemical bleaching through the use of chloride bleaches or hydrogen peroxide bleaches. Such bleaching operations still have a very definite and positive place in the processing of cloth, but they are not the final answer to the brightest whites.

Physical removal of impurities, such as degumming, is another method finding application in textiles. More recently, the compensating of the natural yellowish cast of certain fabrics by treating with a trace of blue dye resulted in pleasing and acceptable products. This procedure is based on the fact that to the human eye, a blued white is the whitest white, and the most pleasing.

This is a built in fallacy in the eye of man. Actually, the purest white is generally considered technically to be represented by a panel on which is freshly deposited a condensation of magnesium oxide. This substance gives the best daylight reflectance of the spectrum in best original proportions. Even this to the human eye looks slightly on the yellow side, and would be considered prettier and more pleasing if its daylight reflectance were knocked down a few percentage points by adding a touch of blue. This method of improving the appearance of any object, therefore has the disadvantage of loss in brightness, or total light reflected from its surface.

The most recent and scientific method of improving the appearance of a material such as cloth, paper, and similar objects intended to be the whitest white, involves the use of treating with a dyestuff that fluoresses white. For example, a cloth treated by the older methods with the best possible technique, will reflect a certain amount of the daylight that falls upon it. If the same cloth is further treated with an optical brigtener, it will look both whiter and brighter. This is because the optical brightener absorbs the invisible ultraviolet portion of the sun's spectrum, converts the absorbed energy to electromagnetic waves in the visible spectrum and emits it as visible light. Thus

—*Continued on page 70*

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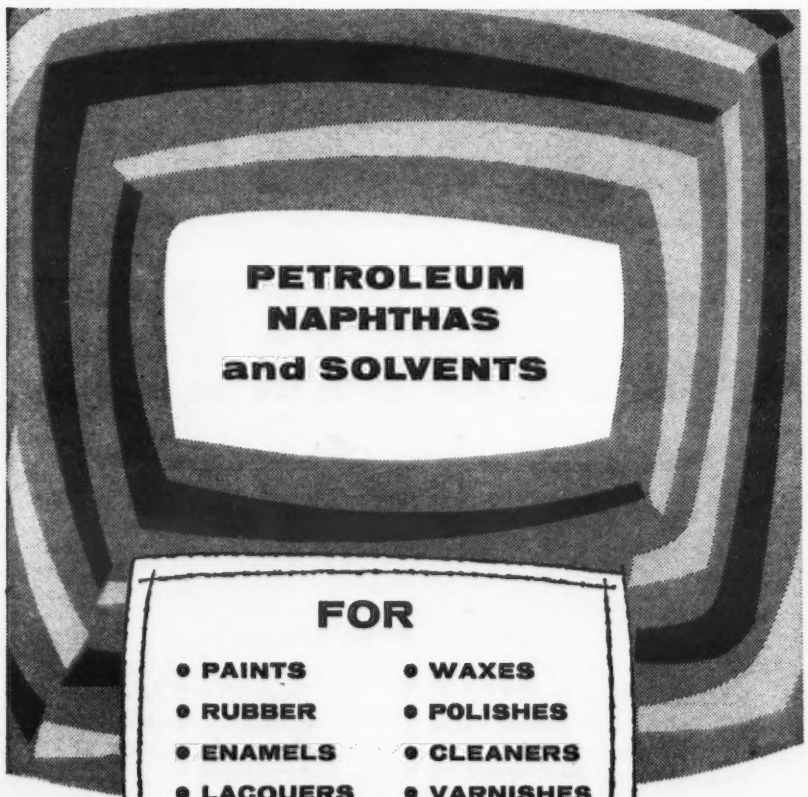

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Petroleum Derivatives

In an industry beset by bearded predators and cups that overrunneth, the derivatives sector is a paragon of stable conformity. No basic changes are noted this week in supply and demand characteristics of the various chemicals, solvents and waxes. As in many industries July provides a breathing spell in which annual maintenance programs may be implemented. This plus the heavy vacation schedule normally associated with the summer months has caused a general leveling out of market activity.

Across the desk last week came sheafs of taxpayers' money in the form of Bureau of Census and Tariff Commission reports. Pertinent matter has been extracted and presented f.y.i.

Aromatic Solvents

Benzene—In a word—tight. Long standing customers of producers are able to procur material but not in the volume that allows any significant buildup of inventory. Spot customers are the hardest hit unless they are willing to pay a premium. Benzene for export, when available, is commanding a price of 45c. or 46c. a gallon. As a result producers are attempting to churn out material but find themselves hard pressed to take up the slack left by reduced cokeoven output.

To meet the heavy demand at least one producer is reported to be converting toluene into benzene thus lessening the supply of that material.

Current contract price remains 34c. a gallon.

Exports of benzene in May, according to Bureau of Census, totaled 2,141,332 gallons valued at $785,243. Major recipients of this chemical in gallons and dollars were.

Brazil—653,050 gallons valued at $231,079.

United Kingdom—596,811 gallons valued at $196,015.

Canada—352,409 gallons valued at $122,424.

Italy—311,116 gallons valued at $139,333.

Mexico—204,116 gallons valued at $68,944.

In sixth place interestingly enough was Cuba with 27,965 gallons valued at $11,845.

The preliminary Tariff Commission report on benzene from petroleum for 1959 is as follows.

Production—212,558,750 gallons.
Sales—201,484,444 gallons.
Dollar value—$57,789,000.

Toluene—A snug supply position is becoming apparent in localized areas. Nothing acute, of course, but indications are that several factors have influenced the decline in supply. For one, with benzene in heavy demand many producers are concentrating their efforts in that direction to gain the benefits of higher prices. Also, motor fuel demand is at peak and toluene is being run into gasoline to upgrade it. Another interesting development is the process by which toluene is being converted into benzene, again for profit motives. The result is that declines in export material is noticeable, particularly in the Gulf area, and producers are remarking on active inquiries from domestic consumers.

Exports of toluene to all countries in May totaled 662,238 gallons valued at $128,334, a sharp reduction from April's figure of over 6 million gallons.

Xylene—Market conditions for this solvent are unchanged. Ample supplies for needs are available. Competition in the midwest industrial areas continues but contract prices show no sign of weakening.

Tariff Commission figures for toluene from petroleum in 1959 are :

Production—252,374,305 gallons.
Sales—137,697,777 gallons.
Dollar Value—$26,573,000.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
103.74	103.82	103.82	104.42

For Current Prices see page 11

Preliminary Tariff Commission figures for xylene from petroleum in 1959 are:

Production—233,505,416 gallons.
Sales—120,927,777 gallons.
Dollar value—$26,228,000.

Aliphatic Solvents

Aliphatic naphthas, mineral spirits, solvents and other finished light oils totaling 88,962 barrels valued at $771,036 were exported in May.

Canada with 31,463 barrels received and India with 15,483 barrels were the major countries of destination.

Waxes

Production of petroleum derived waxes in April totaled 467,000 barrels (1 bbl. equals 280 lbs.). This is a decrease from March when 511,000 barrels were produced and a drop from April a year ago when 506,000 barrels were turned out.

Exports in April were reported to be 93,000 barrels, a decrease from March when 105,000 barrels were exported. April a year ago showed exports at 84,000 barrels.

Stocks in April were 782,000 barrels, the same figure as for March. April, 1959, stocks were recorded as 715,000 barrels.

Domestic demand in April was estimated to be 374,000 barrels, a decrease from March's figure of 425,000 barrels. April, 1959, showed domestic demand at 392,000 barrels.

Comparison of the first four months of this year and last shows:

	1960 Barrels	1959 Barrels
Production	1,913,000	1,879,000
Imports	4,000	4,000
Exports	407,000	333,000
Stocks	782,000	715,000
Domestic demand	1,502,000	1,547,000

LPG's

Butane-Propane Mix—Production totaled 25,453,000 gallons during the period June 1-15, a decrease of 3,374,000 gallons from the last two weeks in May.

Iso-butane—28,719,000 gallons were reported produced in the first two weeks of June. The previous two week period saw 35,194,000 gallons turned out.

Propane—163,543,000 gallons were produced during June 1-15. This represents a drop of 21,701,000 gallons from the last reported period of May 16-31.

Stocks as of June 15 totaled 467,499,000 gallons, an increase from the 421,838,000 gallons reported on May 31.

Miscellaneous

Petrolatum and petroleum jelly export figures for May are computed by Bureau of Census at 5,681,243 lbs. valued at $445,627.

Japan led the field with 893,750 barrels destined for her shores while United Kingdom ranked second with 800,544 barrels followed by Canada with 345,331 and Brazil with 274,100.

Current reports of the industry for the week ended July 1, 1960, indicate a decrease in crude-oil production and an increase in crude runs. According to the API, the daily average output of crude (including lease condensate) was 6,811,000 barrels, a decrease of 9,000 barrels from the preceding week. Daily average crude runs to stills of 8,295,000 barrels were 64,000 barrels above the preceding week, and 359,000 barrels above the week ended July 3, 1959. Runs of foreign crude amounted to 1,013,000 barrels daily, compared with 1,020,000 barrels in the preceding week. For the four-week period ending July 1, crude oil production averaged 6,811,000 barrels daily, and crude runs to stills averaged 8,099,000 barrels daily with runs of foreign crude averaging 1,039,000 barrels daily.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended July 2, totaled 254,676,000 barrels according to data reported by the Bureau of Mines. Compared with the total of 257,658,000 barrels the preceding week, this represents a decrease of 2,982,000 barrels, comprising a decrease of 2,029,000 barrels in stocks of domestic crude and a decrease of 953,000 barrels in stock of foreign crude.

Agricultural Chemicals

Farm output for 1960 is expected to be one of the highest recorded in spite of a slow and backward planting season. The Department of Agriculture forecasts a wheat crop that should exceed last year's yield by almost 219 million bushels, but a corn crop that should be less than last year's by almost 280 million bushels. The department states that prospects for all farm crops point to a favorable outlook for most areas of the nation. The corn crop will be supplemented by a reserve and carryover from previous crops estimated at about 2 billion bushels. The wheat reserve and carryover is estimated at 1.3 billion bushels.

While USDA predicted larger crops for the year, estimates of farm business conditions show that during May, production on the farm was up 1 percent over the previous month and 66 percent above the base year (1947-49=100). For the same month, farm marketings were only three percent above the same base year, and 5 percent above that for April when the index dropped to 98.

At about the same time USDA reported crop yields for 1960, the Food & Agriculture Organization stressed the need to reduce the enormous losses of world food supplies caused by careless or inadequate storage. The organization suggests the application of new scientific methods of prevention.

As a measure of the importance of the problem, the FOA estimates that in 1956, when global production of cereal gains exclusive of the Soviet Union amounted to 732 metric tons, one-tenth or 73 million metric tons was lost through faulty storage. The agency estimates that the volume lost would have been enough to feed 247 million people for a year with a ration of about 1¾ pounds a day.

Examples of losses in past cited by the organization includes a survey of Italian grain crops that show losses of five-tenths of one percent of the wheat crop a year with damage amounting to $4.8 million from pests attacking the reserve. Only a portion of the $800,000 allocated each year in Italy for insecticides for agricultural crops is earmarked for protection of stored grain.

To augment the numbers of domestic staff workers qualified to handle the storage and protection of storage grains, the FOA has been conducting courses at training centers established in a number of underdeveloped countries.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
109.97	109.97	109.97	111.14

For Current Prices See Page 11

Animal and Plant Foods

Ammonia—As the direct application period for anhydrous ammonia draws to a close, producers report that while material continues to move at a moderate rate, demand is off from its usual strength for this time of the year. Inventories are reported to be at high levels as production overran demand during the peak of the season.

Ammonium Phosphates—During May, Canada was the only supporter of ammonium phosphates to this country. Customs reports that during May, inshipments of ammonium phosphates amounted to 11,353 tons and had a value of $609,184.

Animal Proteins—Quotations for fishmeal and scrap continue to hold at their lower listings of $100 per ton for meal and $96 per ton for scrap, bagged, Atlantic and Gulf coasts. Market for scrap and meal is reported to be very quiet, even as the fishing season off the northeastern coast of the US gets into full swing.

Peatmoss—Total shipments of peatmoss during May amounted to 34,103 tons. The value of May's imports was estimated at $1,762,643. Leading the list of shippers to this country was Canada with 22,897 tons. Canada's shipment were valued by Customs at $1,300,049. Other sources of peatmoss during May were West Germany, Denmark, the Netherlands, Sweden, and Poland. Of this group West Germany led the list with 8,555 tons. The value of West Germany's shipments was estimated at $341,603.

Nitrogen Solutions—Demand for nitrogen solutions from mixed fertilizer manufacture is down to its seasonal low. Greatest demand for nitrogen solutions usually occurs during the first part of the year, picking up again around the beginning of September.

Producers report that during the last fertilizer year bad weather over much of the country last spring resulted in a less than average volume of fertilizer sales. This was particularly true in regard to the mid-west where tonnage is reported to have been well below the average for that region. In the South, tonnage was reported to be off somewhat from the previous year but considerably better than that for the Mid-West. Trade sources report the usual optimism for the new fertilizer year. Price, schedules for nitrogen solution due to take effect on August 1 are considered firm. On that date (August 1) direct application type nitrogen solutions are due to go from the present $160 per ton to $158 per ton, f.o.b. producer's plant.

Nitrogenous Sewage Sludge — Chicago prices for dried activated sludge for July through May, 1961 were announced this week by one major producer. For July to September the new price is $2.95 per unit of ammonia. For October, November, December, 1960 and June, 1961 the price will be $3.35 per unit. For January through May, 1961 the price will be $3.50. The old price was $3.50 per unit.

Potash Salts—With demand for potash in its usual summer slump, most producers find the market featureless. Prices are reported to be firm, supplies are termed adequate.

Import of potash salts during May totaled 85,000 tons, according to information supplied by Customs. Inshipments during May were split between West Germany and the Netherlands. Germany shipped 55,000 tons, and the Netherlands 30,000 tons. Value of May's shipments were estimated at $96,590.

Urea—As the fertilizer season draws to a close, the affect on most fertilizer materials becomes apparent. Urea is no exception. Producers report that with the season's end, demand has been falling off. Activity in industrial quarters is also off as plants prepare for the new seasons and others close down for summer vacations. Listings for urea are reported to be firm. The change from a delivered basis to an FOB basis for fertilizer grades of urea seems to be an established condition of the market, as reports indicate many producers changing their schedules to match competition.

Imports of urea during May totaled 8,192 short tons and had a value of $727,681. Leading shippers were West Germany 2,324 short tons; Belgium 1,699 short tons; Canada 2,041 short tons and the United Kingdom with 638 short tons.

Pesticides Output

Following are production statistics reported by the Tariff Commission representing the number of pounds of certain pesticides produced during March and April, 1959:

	March	April
DDT	13,616,875	13,392,703
2,4-D*	3,481,005	3,722,377
Ester & Salts	3,518,687	3,291,778
Acid equivalent	2,495,634	2,258,057
BHC	4,276,611	3,302,726
Gamma Isomer	717,780	595,401
Tetraethyliuram sulfides	—	—
2,4,5-T	553,432	548,769

* Includes 2,4-D acid produced, separated and consumed in plant in the manufacture of its derivatives.
A dash (—) indicates information was not available.

Pesticides

DDT—Production of DDT for the month of April was 13,392,703 pounds. For the previous month the output was 13,616,875 pounds according to a report made by the US Tariff Commission. Market conditions for DDT remain generally routine. No change in prices or supplies is reported.

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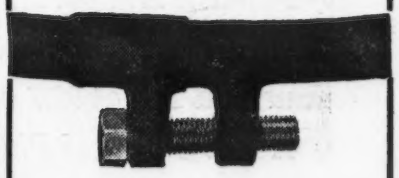

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Coal Chemicals

Business in general is exhibiting a complex and often contradictory character. Most firms are reporting higher sales volume but profits do not seem to rise in proportion. Steel production is lagging and yet most industries are steaming ahead vigorously. Notable exception—appliances. Perhaps the old saw, "as steel goes, so goes the nation" no longer holds true. At any rate the disparity between current steel and cokeoven output and the rest of the economy is a puzzle. Over-production before and after the steel strike is the answer some give while other observers see a changing economy, one in which the depression of a basic industry does not make itself felt as fully as heretofore. Others more pessimistic than the rest, contend steel sloth will have an unfavorable delayed effect.

Perhaps so, yet there is a strong feeling in the industry that the worst may be over, that the balance of the year may not be as spectacular as once predicted but that in the long run there will be more smiles than frowns.

The week of July 4-11 saw the nadir of production for the year in steel and coke and cokeoven products. It was due in part to traditional holiday shutdowns and also to what was frankly the low spot of demand. The fever chart of production for that week averaged a chilly 42.2 percent of capacity. Last week it was estimated to have climbed to 53.1 percent of capacity. High production? No. Optimistic? Perhaps. Auto orders for steel began arriving this month and although two car firms asked delay of delivery it would appear steel and coke rates have no where to go but up.

According to present trade estimates October seems to be the month in which a sustained drive can be launched. The final effect of "good" supply and demand should be approached by the new year. This applies particularly to benzene, naphthalene and the other coal chemicals now in short supply.

In the current market, activity is generally slowed due to heavy vacation schedules and annual maintenance programs. Benzene is in short supply as it has been for some time and naphthalene is in the same boat. Phthalic anhydride, dependent as it is upon naphthalene, is also short. Improved supply will flow into the marketplace only when coke rate is up. Petroleum supply of naphthalene for phthalic is a good year away and will be of no aid to manufacturers until mid-61 or later.

The American Iron and Steel Institute estimated that steel production in the week ended July 17 would amount to 53.1 percent of theoretical capacity equivalent to 1,513,000 net tons of steel. Output in the previous week was 1,203,000 tons, 1,775,000 tons in the comparable week one month ago and 1,097,000 net tons in the corresponding week one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
118.30	118.42	118.40	118.45

For Current Prices See Page 11

Basic Products

Benzene—Supply continues tight. Connected as this chemical is to cokeoven activity and steel rate there are hopes in the industry that the week of July 4-11 was the rock bottom of the situation and that supply has nowhere else to go but up. Indications are that this is the case. Steel people themselves are growing confident as the first trickle of orders for autos are beginning to appear. Steel operating rate climbed to an estimated 53.1 percent after the low of 42.2 recorded during the week of July 4. A rate in the fifties is nothing to crow about but it is an improvement and points the way for a continued rise. A rate in the seventies or eighties would be welcome to all but there seems little possibility of that until October or so. Once that aim is achieved and sustained supply of benzene is expected to ease.

Concerning price there has been some speculation about a fourth quarter hike. A contract price of 40c. is bandied about, but other estimates of 36c. to 38c. are mentioned quite frequently, too. Talk is cheap, of course, and if additional supply comes on the market before September it is unlikely that any price increase will occur.

Bureau of Census export figures for this chemical in May are as follows:

Total: 2,141,332 gallons valued at $785,243.

By Country:

Brazil—653,850 gallons valued at $231,079.

United Kingdom—569,811 gallons valued at $196,015.

Canada—352,409 gallons valued at $122,424.

Italy—311,116 gallons valued at $139,333.

Mexico—204,116 gallons valued at $68,944.

Sales of benzene, as determined by Bureau of Mines, dropped in May. Nitration grade declined 8.5 percent, from 9,537,236 gallons in April to 8,723,204 in May. On the year as a whole, however, nitration grade is slightly ahead of the corresponding period last year with 47,239,123 gallons being reported sold in the first five months of 1960 as opposed to 47,074,573 gallons in 1959.

Industrial pure grade in May showed a drop of 13.5 percent from April. In gallons the figures were 3,200,677 gallons for May and 3,709,233 for April. The first five months of this year reveal 18,301,919 gallons being sold as against 18,445,087 gallons over the same period last year.

m, p Cresol—Domestic demand for meta-para is picking up somewhat, trade sources say. Interestingly enough European calls for material are going unanswered, by and large, as domestic demand takes most of the output. Xylenols on the other hand are very slow at present.

Cresylic Acid—Imports are considered fair for this time of the year. On the domestic scene, however, activity is slack and is expected to remain so possibly through the summer. Inventories are being expended so as to drain storage tanks and thus implement annual maintenance programs. To some observers the sluggish state of the present market presages a very good fourth quarter.

Prices are unchanged.

Naphthalene—Tight supply continues unabated. Prolonged low operating rates of cokeovens and world-wide high demand for this product are the reasons, of course.

Veteran observers see no hope of relief until the fall. By that time it is expected the steel industry will have rebounded

Cokeoven Output: May

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	May 1960	*First Five Months* 1960	*First Five Months* 1959
Benzene, nitration	9,406,002	53,589,552	49,059,981
Industrial pure	3,352,382	18,407,849	18,330,287
Industrial 90 and other	186,227	950,344	698,651
Coaltar, crude	63,650,556	354,729,267	359,598,250
Chemical oil, crude	2,640,530	13,926,079	10,423,911
Solvent naphtha, crude and refined	448,697	2,355,205	2,256,998
Toluene, nitration	2,310,314	12,215,887	12,000,327
Industrial pure	514,621	2,726,685	2,981,024
Xylene, all grades	649,419	3,719,095	4,208,008

Coal Chemicals

from the low level of activity it now experiences. Steel and coke production should start to climb in August, hit respectable levels in September and by October be somewhere near healthy operating rates, trade comments report. Naphthalene is predicted to drag behind steel rates and so late October or November should show signs of recovery in regard to supply.

Evidence of the tight supply situation currently existing is the high price being paid for export material. Whoever is buying over there, an observer says, is carrying a fat checkbook and an uncapped pen.

Phenol — Market conditions continue generally unchanged. Material is moving with regularity and producers report comfortable inventories on hand to meet calls.

Prices remain unchanged.

Picolines—Picolines holds a strong position trade sources indicate. a-Picoline is in good supply with no expectation of change. Imports of this product have been coming in below US prices, but the domestic price maintains a firm posture.

Currently g-picoline in drums, f.o.b., works is priced at $1.60 a lb. while a-picoline in drums in carlot quantities, freight equalized, is priced at .41c. to 43½c. a pound.

Pyridine—Supply situation here remains extremely tight. According to the trade there is little immediate hope of relief. Evidence of this is the fact that imports have all but disappeared and little or no material is available for export purposes.

A synthetic pyridine plant scheduled for late this year offers consumers some cause for optimism. The extended shortage of material, however, and diminishing inventories may prove an offsetting factor and continue the tight supply situation beyond present estimates.

In drums, carlot quantities, freight equalized, the price is 50¾c. per pound. Drums, less carlots, same basis moves at 51½c. per pound and tanks, same basis, 50c.

Tar Acids—Indicative of the languor that has been prevalent in this area of the market all year trade sources report that July is going to be poor month as well. Many operators are taking advantage of the slow rate of activity to shutdown and perform necessary repair and maintenance of their equipment. The reduced break lining, resin business, *et al.* has contributed as well to what observers feel will be the nadir of the year's activity.

Toluene—Volume of exports for May, the latest month for which statistics are available, showed a considerable decline. In domestic markets some areas are showing signs of snugness. This condition is not widespread and is in effect in local regions only, such as the Gulf.

Reasons for the situation are manifold. Benzene being in world-wide demand producers are naturally turning their efforts in that direction for the higher prices which prevail. Consequently toluene supply is shortened. Then, too, the summer months are traditionally the period of peak gasoline consumption and much toluene is being run in to upgrade motor fuel. The cokeoven situation needs little comment in respect to diminishing supply of toluene. It must be emphasized, however, that the major area of difficulty in toluene supply lies in gathering material for export. The domestic market is amply supplied and is expected to remain so.

May's exports as reported by Bureau of Census shows a considerable decline. 662,238 gallons were exported to all countries valued at $128,334. April's figure approximately ten times as great.

Xylene—Sales in May showed a decline of 23.1 percent from the previous month. Some 664,974 gallons were moved in May compared to 865,103 gallons in April. The January to May period reveals 3,590,116 gallons being sold as opposed to 4,168,118 gallons during the same period last year.

In general xylene has been less effected than toluene by the swing to benzene. Supplis are adequate with the midwest industrial areas the most competitive area of the market. The new model auto year promises to stimulate contention in those areas even further.

Contract prices remain unchanged.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended July 17, was as follows:

Ammonium liquor	lbs.	478,798
Ammonium sulfate	lbs.	19,054,804
Benzene	gals.	1,941,796
Coaltar	gals.	10,613,378
Crude chemical oil	gals.	309,332
Solvent naphtha	gals.	62,066
Toluene	gals.	424,355
Xylene	gals.	124,133

Dyes

Tariff Commission report on 1959 imports of dyes is now available. In 1959 Switzerland and West Germany were the principal suppliers of imported dyes. United Kingdom, Italy, France, the Netherlands and Belgium followed in order of quantity.

Imports from Switzerland in 1959 totaled 2.1 million pounds, or 50.1 percent of all dyes imported, compared with 1.8 million pounds, or 53.1 percent of the total in 1958.

Imports from West Germany totaled 1.5 million pounds in 1959, or 35.9 percent of all dyes arriving in the US in 1959. On a percentage basis West Germany held almost even with 1958 (35.7 percent) although the volume in 1959 was some 300,000 pounds higher in 1958.

In 1959 United Kingdom accounted for 7.6 percent of total imports of dyes, compared with 4.8 percent in 1958. Italy contributed 2.2 percent of total dye imports in 1959 compared with 3.4 percent in 1958. In 1959 imports from France totaled 87,000 pounds; from the Netherlands, 51,000 pounds; and from Belgium, 36,000 pounds.

Intermediates

Maleic Anhydride—Little if any significant activity is noted by observers in the trade. A quiet July is expected now that prices changes have been made.

Phenol—Exports in May totaled 2,863,196 lbs. worth $451,242. Netherlands was the chief recipient of this chemical with 1,124,515 lbs. valued at $154,651.

Phthalic Anhydride — Currently scarce and expected to remain so, this product is suffering the effects of low steel and

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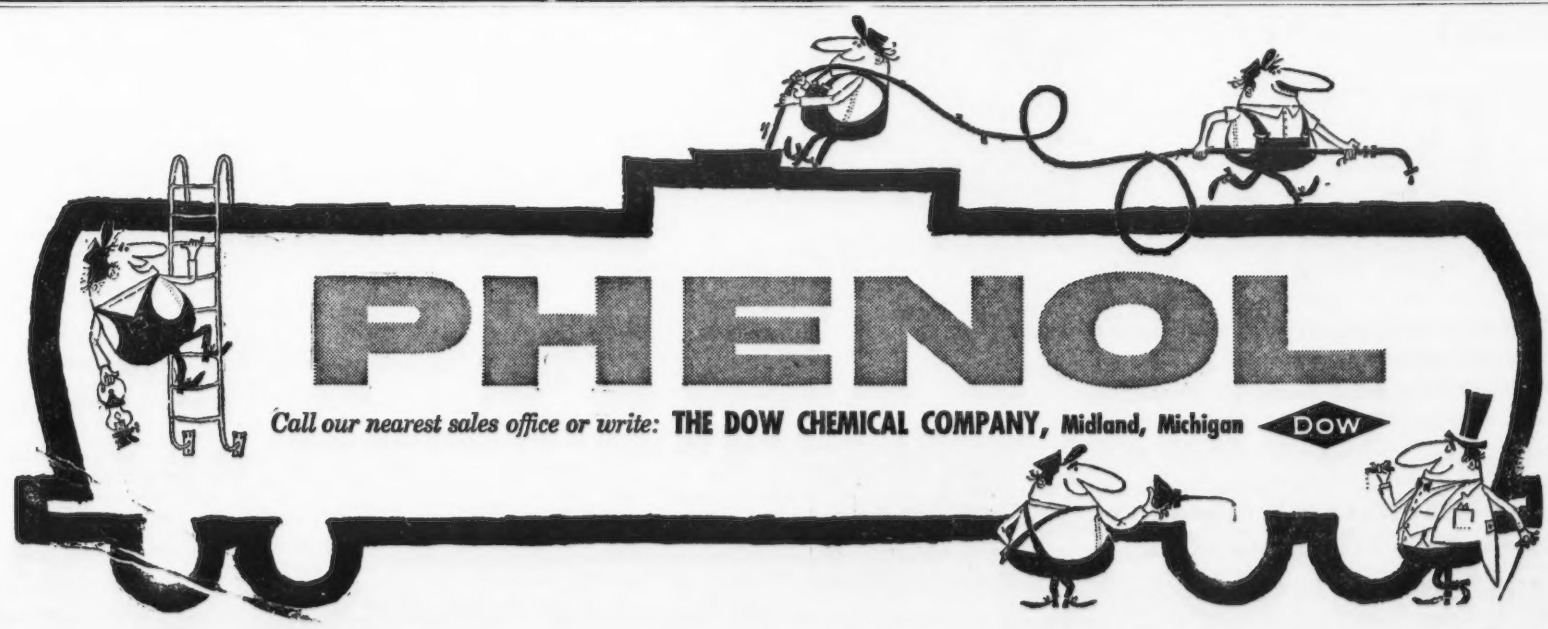

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Coal Chemicals

coke production and the consequently reduced naphthalene output.

Trade sources see their hopes of increased supply tied in with a revitalized steel rate. They are not, however, as optimistic about predictions of a quick recovery as is the steel industry. The feeling is that October may be the month in which increased supplies of naphthalene may start to become available once again. Then, too, on the far horizon is the prospect of obtaining naphthalene from petroleum producers. The projected plants are not built yet and cannot offer phthalic anhydride people any succor until next year. Until the plants do become reality it will give phthalic anhydride producers something to dream about and coal suppliers of naphthalene something to think about.

May export figures totaled 2,955,187 lbs. valued at $664,387. United Kingdom was the country of destination for 880,660 lbs. valued at $197,694. Sweden followed with 604,550 lbs. valued at $146,309 heading her way. Further down the list East Germany was noted with 110,000 lbs. valued at $27,942.

Styrene Monomer—May export figures totaled 7,801,277 valued at $939,436. Chief recipients were:

Italy—3,356,770 lbs. valued at $386,029.

The Netherlands—3,337,020 lbs. valued at $422,145.

Mexico—429,847 lbs. valued at $49,999.

Rubber industry demands continue well sustained and are expected to increase as the new model year is about to be ushered in next month. Supply is well on hand to meet calls and producers see no alteration in the situation at present.

Obituaries

Robert T. Baldwin

Robert T. Baldwin, secretary-treasurer of the Chlorine Institute from 1928 to 1959, died July 12, in Charlottesville, Va. He was seventy-eight years old.

Mr. Baldwin was treasurer of the Chemists Club in New York from 1927 to 1944, and of the American Chemical Society from 1931 to 1947.

Samuel J. Cohen

Samuel J. Cohen, president of Enterprise Chemical Corporation, Westport, Conn., and Anderson Refining Company, Dallas, Tex., died July 13 in Westport. He was sixty-five years old.

A chemical engineer, Mr. Cohen was responsible for the development of chemicals and chemical processes, including a raw material for the manufacture of nylon and plastics, and a process for the production of chlorinated paraffin.

Harold C. Deakin

Harold C. Deakin, former vice-president of Allied Laboratories, and western zone manager of its subsidiary, Pitman-Moore Company, died June 18 in DeLand, Fla. He was sixty-seven years old.

Mr. Deakin joined Pitman-Moore in 1938 as manager of west coast operations. He become western regional manager in 1946 and zone manager in 1950. During the same year he was named to the parent firm's board of directors and later elected vice-president.

Walton M. Wheeler, jr.

Walton M. Wheeler, jr., vice-president, secretary and general counsel of Eli Lilly & Co., died July 4 in Walloon Lake, Mich. He was fifty-two years old.

Mr. Wheeler had been associated with the Indianapolis, Ind., company for twenty-four years. He was elected secretary in 1944 and vice-president in 1954. He had been a member of the board of directors since 1949.

James A. Ahearn, executive vice-president, a director and chairman of the executive committee of Sinclair Refining Company, died July 11 in Englewood, N. J. He was fifty-eight years old.

Dr. Hugh H. Bennett, former chief of the US Soil Conservation Service, died July 7 in Burlington, N. C. He was seventy-nine years old.

Jacob M. Berdan, former sales executive in the New York office of Johns-Manville Corporation died July 11 in Paterson, N. J. He was eighty years old.

Edmund H. Conway, sales manager of the New York branch office of Whitehead Metals, Inc., distributors of nonferrous metals, died July 12 in New York. He was fifty-five years old.

Gilbert S. Jackson, former accountant with Interchemical Corporation, Bound Brook, N. J., died July 8 in Plainfield, N. J. He was eighty years old.

Kenneth R. Kaiser, manager of the Knoxville, Tenn., plant of Rohm & Haas Company died July 11 in that city. He was fifty-three years old.

Alexander Seidler, sr., president of Seidler Chemical & Supply Company, Newark, N. J., died July 12 in South Orange, N. J. He was eighty-seven years old.

Hercules Advances Plans To Build Australian Unit

Hercules Powder Company is preparing to build a new plant in Australia. Output, scheduled for next year, will consist of rosin-based emulsifiers for the synthetic rubber industry and other chemicals for the paper makers.

The unit will be located at Springvale, Victoria, near Melbourne. Actual production will be undertaken by Hercules Powder Company (Australia) Pty., Ltd., which is now being organized by the Hercules interests in Wilmington, Del., and A. C. Hatrick Pty., Ltd., of Australia.

Emulsifier output will go to Australian Synthetic Rubber Company under a long-term sales agreement.

Vanilla Trade Stalls

—*Continued from page 3*

standards is whether they should require that the moisture content of cured vanilla beans, used in making vanilla products, should be taken into account in presenting the weight of the vanilla beans.

The petition of McCormick proposes that the beans be considered on a dry basis, while that of the other seven producers is based on an "as is" moisture content of the bean.

The proposed standards would cover vanilla extract, flavoring and powder; concentrated vanilla extract and flavoring; vanilla-vanillin extract, flavoring and powder, and concentrated vanilla-vannillin extract and flavoring.

In regard to the vanillin product, both proposed standards would require a statement on the label saying that the contents of the packaged product "contain vanillin an artificial flavoring" or "vanillin, an artificial flavoring added."

The issue over standards for vanilla developed in the midst of consideration by FDA of the standards for ice cream. There the big unsettled question of labeling ice cream as artificially flavored if it contains vanillin has held up the issuance of the standard.

Because the subject of vanilla standards and labeling of ice cream are so interrelated, it is now thought possible that the ice cream standards will be delayed still longer until the vanilla standard has been settled.

Rubber Chemicals

—*Continued from page 7*

commission tabs them at 159 million pounds, valued at $102 million, up from 123 million pounds, valued at $80 million the year before.

Output of cyclic rubber-processing chemicals in 1959 amounted to 178 million pounds, compared with 144 million pounds in 1958. Sales totaled 134 million pounds, valued at $86 million, compared with 103 million pounds, valued at $67 million, in 1958. (Cyclic rubber-processing chemicals are chiefly accelerators and antioxidants.)

Production of amino and hydroxy antioxidants, which amounted to 59 million pounds in 1959, included 42 million pounds of amino compounds and 17 million pounds of hydroxy compounds, the commission reports.

Production of acyclic rubber-processing chemicals, chiefly accelerators and peptizers, amounted to 32 million pounds, compared with 25 million pounds in 1958. Sales amounted to 25 million pounds, valued at $16 million, compared with 20 million pounds, valued at $13 million, in 1958.

Statistics on production and sales of rubber-processing chemicals in the commission's preliminary report are said to be more than 95 percent complete. Complete statistics will be given in the commission's final report on production and sales of synthetic organic chemicals in 1959—to be issued later this year.

IMPORTS at United States Ports

New York

ACETONE—9 bbls, Rotterdam
ACTH—4 cs, Penson & Co, Gothenburg
ALBUMIN—300 bgs, P A Gaynor, Rotterdam
ALPHA-METHYLNAPHTHALENE—5 dms, Transworld International Service, Rotterdam
ALUMINUM FLUORIDE—100 bgs, Genoa
AMINOBARBITAL—13 kgs, Copenhagen
AMMONIUM BICARBONATE—150 bgs, Chemical Manufacturing Co, Glasgow
AMMONIUM CARBONATE—34 dms, American Firstoline Corp, Rotterdam
118 dms, American Agricultural Chemical Co, Glasgow
ANILINE DYES—14 dms, Geigy Chemical Corp, Havre
43 dms, H Bruckmann & Lorbacher, Hamburg
33 dms, Carbic Hoechst Corp, Rotterdam
82 dms, Sandoz Inc, Havre
47 dms, Rotterdam
ANTHRAQUINONE—500 bgs, Hudson Shipping Co, Yokohama
ARABIC GUM—100 bgs, Kennedy Butcher & Co, Apapa
ARSENIC, METALLIC—50 dms, Kolon Trading Co, Skelleftehamn
35 dms, Millmaster Chemical Corp, Skelleftehamn
ARSENIC, WHITE—123 bbls, American Smelting & Refining Co, Tampico
ASCORBIC ACID—24 dms, Byron Chemical Co, Kobe
BARIUM SULFATE—341 cs, Picker X-Ray Corp, London
BEESWAX—126 bgs, Zeitlins Sons, Paranagua
85 blks, Koster Keunen, Assab
167 bgs, Marine Midland Trust Co, Porto Alegre
49 bgs, Smith & Nichols, Salvador
200 bgs, Smith & Nichols, Valparaiso
30 blks, Bank of N Y, Lobito
433 bgs, Chase Manhattan Bank, Lisbon
550 bls, Luanda
BENZOIN GUM—28 cs, Meer Corp, Singapore
BLANC FIXE—1,000 bgs, C J Osborn Co, Rotterdam
30 cks, C J Osborn Co, Rotterdam
BRONZE PRUSSIAN BLUE POWDER—12 dms, C J Osborn Co, Rotterdam
BRUCINE SULFATE—1 cs, Byron Chemical Co, Calcutta
BUTTONLAC—100 bgs, Haeuser Shellac Co, Calcutta
CALAMUS ROOT—44 bgs, Fritzsche Bros, Calcutta
CALCIUM CARBONATE—1,500 bgs, Pluess Stauffer, Antwerp
2,000 bgs, N H Weitzner, Antwerp
CALCIUM FORMATE—50 bgs, Reveili Chemicals inc, Rotterdam
CALCIUM HYPOCHLORITE—570 dms, Yokohama
CALCIUM PHOSPHATE—20 dms, Roussel Corp, Marseille
CAMPHOR OIL—25 dms, A Verley & Co, Yokohama
25 dms, Magnus Mabee & Reynard, Yokohama
CARAWAY SEED—300 bgs, Louis Furth, Rotterdam
100 bgs, Rotterdam
CARBAZOLE—34 cks, Terra Chemicals Inc, Rotterdam
CARBON, ACTIVATED—83 dms, Connor Engineering Corp, London
CARDAMOM—11 cs, Wm E Martin & Son, Stockholm
CARNAUBA WAX—124 bgs, National City Bank, Tutoia
407 bgs, Colonial Trust Co, Tutoia
250 bgs, Bank of N Y, Tutoia
50 bgs, Bank of London & S A, Tutoia
775 bgs, Marine Midland Trust Co, Tutoia
279 bgs, Cornelius Wax Refining Corp, Fortaleza
56 bgs, Smith & Nichols, Fortaleza
67 bgs, J W Hanson & Co, Fortaleza
301 bgs, Frank B Ross, Fortaleza
316 bgs, M Argueso & Co, Fortaleza
247 bgs, M Argueso & Co, Natal
CASEIN—215 bgs, F H Paul & Stein Bros, Oslo
500 bgs, Sayous Corp, Buenos Aires
2,000 bgs, F C Gerlach, Buenos Aires
200 bgs, Ponta Delgada
CASSIA—259 bls, J F Frank, Rotterdam
CASTOR OIL—130 tons, Salvador
CHESTNUT EXTRACT—2,013 bgs, Chase Manhattan Bank, Genoa
380 bgs, Barkey Importing Co, Naples
CHLORTETRACYCLINE—4 dms, American Cyanamid Co, Antwerp
CINNAMON QUILLS—100 bls, George Lueders & Co, Colombo
CITRONELLA OIL—25 dms, Doraw & Schmiedel, Keelung
CLAY, BALL—2,184 bgs, United Clay Mines Corp, Avonmouth
CLAY, CHINA—800 bgs, Anglo American Clays Corp, Avonmouth
CLOVE—100 bgs, Max Van Pels, Tamatave
CLOVE OIL—37 dms, Magnus Mabee & Reynard, Tamatave
5 dms, A Verley & Co, Tamatave
23 dms, Ungerer & Co, Tamatave
23 dms, Trubek Lab, Tamatave
23 dms, Schulton Inc, Tamatave
COBALT OXIDE—160 cks, Antwerp
COCONUT OIL—800 tons, Pacific Vegetable Oil Corp, Marseille
CODLIVER OIL—207 dms, Peder Devold Oil Co, Lisbon
50 dms, Arista Oil Products Corp, Oslo
93 dms, Peder Devold Oil Co, Leixoes
[illegible] National City Bank, Lisbon
COLORS, DRY—500 bgs, Naftone Inc, Bremen
COPAL GUM—85 bgs, O G Innes Corp, London
CORN OIL—420 tons, Corn Products Co, Rotterdam
CORN STARCH—1,320 bgs, Rotterdam
100 bgs, Antwerp
CREAM OF TARTAR—400 bgs, Bank of N Y, Barcelona
CRESYLIC ACID—181 dms, Van Oppen & Co, Avonmouth
CUMIN SEED—523 bgs, Manufacturers Trust Co, Khorramshahr
100 bgs, Am-Iran Corp, Khorramshahr
850 bgs, Khorramshahr
CUTTLEFISH BONE—100 cs, Morgan Guaranty Trust Co, Nagoya
100 cs, Morgan Guaranty Trust Co, Yokohama
75 cs, Lisbon
23 cs, Tunis
L-CYSTEIN HYDROCHLORIDE—2 dms, Lo Curto & Funk, Bremen
L-CYSTIN—1 dm, Lo Curto & Funk, Bremen
DAMMAR GUM—42 bgs, O G Innes Corp, Singapore
DEGRAS—50 dms, Manufacturers Trust Co, Antwerp
50 dms, Gallard Schlesinger, Bremen
50 dms, Hummel Lanolin Corp, Bremen
4 dms, Hugh J Meeter Co, Rotterdam
2 cs, N I Malmstrom, Rotterdam
105 dms, N I Malmstrom, Bremen
DEXTRIN—500 bgs, Bestick Adhesives Inc, Rotterdam
370 bgs, Manufacturers Trust Co, Rotterdam
200 bgs, Morningstar Paisley Inc, Rotterdam
330 bgs, Rotterdam
DILL SEED—100 bgs, Louis Furth, Bombay
175 bgs, M J Golombeck, Bombay
DINA ACID—5 dms, H Bruckmann & Lorbacher, Bremen
DIOXANE—1 bbl, Rotterdam
DYES, COALTAR—28 dms, L & R Organic Products Co, Rotterdam
20 dms, Biddle Sawyer Corp, Rotterdam
57 dms, H Bruckmann & Lorbacher, Hamburg
EARTH COLORS—1,925 bgs, Naftone Inc, Bremen
4 dms, L & R Organic Products Co, Antwerp
3 dms, M Grumbacher, Bremen
450 bgs, Reichard Coulston, Bremen
476 bgs, Reichard Coulston, Larnaca
EDIFAS-A—100 bgs, Chemical Manufacturing Co, Glasgow
ESPARTO WAX—16 bgs, Cornelius Wax Refining Corp, Glasgow
FARINA STARCH—224 bgs, D C Andrews, London
FISHLIVER OIL—55 dms, Wilbur Ellis Co, Yokohama
8 dms, Arista Oil Products Corp, Yokohama
10 dms, Interocean Chemical & Minerals Corp, Yokohama
31 dms, Consumers Import Co, Yokohama
FISHMEAL—6,000 bgs, Marine Midland Trust Co, Chimbote
4,410 bgs, Marine Midland Trust Co, Arica
FURFURAL—893 tons, E I Dupont De Nemours & Co, La Romana
GELATIN—100 bgs, Medico Chemical Corp, Rotterdam
500 bgs, T M Duche & Sons, Antwerp
85 dms, H Bruckmann & Lorbacher, Rotterdam
100 ums, Franco Belgian Corp, London
100 bgs, B Young, London
7 dms, M Corbett & Co, Marseille
50 cks, Havre
GERANIUM OIL—2 dms, International Flavors & Fragrances Inc, Algiers
1 dm, National City Bank, Algiers
3 dms, A Chiris Co, Algiers
4 dms, Florasynth Lab, Tamatave
6 dms, J Manheimer, Tamatave
1 dm, A Chiris Co, Tamatave
GINGER—57 bgs, Van Loan & Co, Kingston
56 bgs, Fritzsche Bros, Kingston
100 bgs, George Uhe Co, London
GLYCERINE—300 tons, Procter & Gamble Co, Manila
GRAPHITE—50 dms, Wedeman & Godknecht, Rotterdam
750 bgs, Asbury Graphite Mills, Colombo
1,750 bgs, C Pettinos, Tamatave
400 bgs, Asbury Graphite Mills, Tamatave
GUAR GUM—67 bgs, J L Quesada, Valencia
1,100 bgs, Morningstar Paisley Inc, Piraeus
2,000 bgs, Morgan Guaranty Trust Co, Bombay
100 bgs, T M Duche & Sons, Rotterdam
GYPSUM, CRUDE—10,307 tons, U S Gypsum Co, Little Narrows
HENNA LEAVES—52 bls, S B Penick & Co, Karachi
IODINE, CRUDE—80 kgs, Mitsubishi Corp, Yokohama
739 kgs, Chilean Nitrate Sales Corp, Tocopilla
b-IONONE—1 dm, Distillation Products Industries, Southampton
IPECAC ROOT—7 bgs, Biddle Sawyer Corp, Santos
IRON OXIDE—1,600 bgs, Smith Chemical & Color Co, Malaga
500 bgs, C J Osborn Co, Malaga
400 bgs, C B Chrystal Co, Malaga
62 dms, Federal Paint Co, Oslo
1,305 bgs, Landers Segal Color Co, Malaga
870 bgs, Reichard Coulston, Malaga
400 bgs, Malaga
IRON POWDER—54 dms, H Bruckmann & Lorbacher, Rotterdam
ISODECYL ALCOHOL—191 tons, Chemical Bank, Liverpool
KARAYA GUM—246 bgs, S B Penick & Co, Bombay
61 bgs, Meer Corp, Bombay
173 bgs, Colony Import & Export Corp, Bombay
127 bgs, Morningstar Paisley Inc, Bombay
183 bgs T M Duche & Sons, Bombay
KOLA NUTS—50 bgs, Meer Corp, Kingston
291 bgs, Apapa
LACTOSE—45 dms, R J Saunders & Co, Rotterdam
LAVENDER OIL—21 dms, Alicante
LEAD, RED—1,260 bgs, Rotterdam
LEAD, WHITE—300 bgs, Rotterdam
LEMON PEEL—23 bls, Alicante
LEMONGRASS OIL—12 dms, Lo Curto & Funk, Cochin
18 dms, L A Champon & Co, Cochin
6 dms, National City Bank, Cochin
24 dms, Givaudan Corp, Cochin
12 dms, Maywood Chemical Works, Cochin
LICORICE EXTRACT—303 bgs, Wm E Martin & Sons, Izmir
LIME OIL—3 dms, Port Au Prince
LOCUST BEAN GUM—250 bgs, T M Duche & Sons, Rotterdam
300 bgs, Paul A Dunkel, Rotterdam
50 cks, T M Duche & Sons, Rotterdam
310 bgs, Morningstar Paisley, Inc, Piraeus
100 bgs, Nehls & O'Connell, Genoa
1,000 bgs, J L Quesada, Portimao
200 bgs, T M Duche & Sons, Portimao
200 bgs, Portimao
LOGWOOD EXTRACT—20 dms, American Dyewood Co, Kingston
MAGNESITE, CALCINED—179 dms, General Cable Corp, Glasgow
MANGANOUS LACTATE—1 ck, Fieldring Chemical Co, Bremen
MANGROVE BARK—1,469 bgs, Barkey Importing Co, Esmeraldas
MANGROVE EXTRACT—500 bgs, Saxe Cutch Corp, Singapore
MENTHOL—5 cs, Lo Curto & Funk, Keelung
50 cs, Norda Essential Oil & Chemical Co, Santos
10 cs, Fritzsche Bros, Keelung
80 cs, Schwabach & Co, Santos
MINERAL COLORS—137 bgs, Reveili Chemicals Inc, Hamburg
MONOCHLOROACETIC AICD—330 dms, Bremen
MONOSODIUM GLUTAMATE—400 dms, Ajinomoto Co, Yokohama
MONTAN WAX—50 bgs, G S Ziegler & Co, Rotterdam
MUSTARD SEED—707 bgs, Berns & Koppstein, Hamburg
MYROBALANS—2,460 bgs, Olson Importing Co, Vizagapatam
4,900 bgs, Hammond & Carpenter, Vizagapatam
1,805 bgs, Barkey Importing Co, Vizagapatam
2,782 bgs, Hammond & Carpenter, Bombay
NAPHTHALENE—1,090 bgs, Antwerp
NAPHTHOL—6 drs, H Bruckmann & Lorbacher, Hamburg
10 dms, Wedeman & Godknecht, Bremen
NICKEL NITRATE—3 dms, Chemimpex, London
NUTMEG—140 bgs, Lo Curto & Funk, Rotterdam
150 bgs, Antwerp
OCOTEA CYMBARUM OIL—23 dms, Givaudan Corp, Itajai
OITICICA OIL—140 tons, First National Minneapolis, Fortaleza
250 tons, Irving Trust Co, Fortaleza
100 tons, Brazilian Industrial Oils, Inc, Fortaleza
OLEORESIN PAPRIKA—31 cs, Alicante
OLIVE OIL—140 dms, C Orlando Corp, Malaga
100 dms, Hanover Bank, Malaga
95 dms, Brown Bros, Malaga
363 dms, National City Bank, Malaga
49 dms, Atlantic Bank of N Y, Malaga
484 dms, National City Bank, Seville
320 dms, Manufacturers Trust Co, Seville
185 dms, Atlantic Bank of N Y, Seville
49 dms, Bankers Trust Co, Seville
222 dms, Sirohmeyer & Arpe, Barcelona
ORANGE PEEL—59 bls, Alicante
b-OXYNAPHTHOIC ACID—20 dms, Genoa
PAPAIN—63 cs, V A Cordovi, Colombo
51 cs, S B Penick & Co, Colombo
PAPRIKA—100 bgs, Archibald & Kendall, Hamburg
200 bgs, Chase Manhattan Bank, Hamburg
420 bgs, A A Sayia, Alicante
50 bgs, Alicante
PEPPER, BLACK—280 bgs, A G Dunn, Singapore
80 bgs, J H Elton, Singapore
70 bgs, Delano Corp of America, Singapore
358 bgs, Singapore
PEPPER, RED—100 bgs, Hismoco American Co, Kobe
PETITGRAIN OIL—5 dms, Fritzsche Bros, Asuncion
PIMENTO—80 bgs, M J Golombeck, Kingston
40 bgs, Louis Furth, Kingston
PIMENTO LEAF OIL—1 dm, Fritzsche Bros, Kingston
POLLACKLIVER OIL—50 dms, Wilbur Ellis Co, Yokohama
112 dms, Interocean Chemical & Minerals Corp, Yokohama
350 dms, Peder Devold Oil Co, Yokohama
50 dms, Arista Oil Products Corp, Yokohama
POLYVINYL ACETATE RESIN—500 bgs, G G Lippelgoes, Kobe
POLYVINYL ALCOHOL—420 bgs, Marubeni Iida Co, Kobe
POLYVINYL CHLORIDE—20 bgs, Prodex Corp, Antwerp
POLYVINYL CHLORIDE RESIN—620 bgs, Mitsui & Co, Kobe
POPPYSEED—400 bgs, Hoger Corp, Izmir
100 bgs, Rotterdam
POTASSIUM FERROCYANIDE — 300 bgs, Filo Color & Chemical Corp, Rotterdam
POTASSIUM METABISULPHITE—200 dms, H Reifenberg, Rotterdam
PYRITES—287 cks, American Metal Climax, Leixoes
QUINCE SEED—38 bgs, Khorramshahr
QUININE BARK—44 bgs, J M Rodriguez & Co, La Guaira
RADIUM ELEMENT—1 cs, Radium Chemical Co, Antwerp
RESIN, SYNTHETIC—200 dms, Hudson Shipping Co, Genoa
RHUBARB ROOT—65 bgs, Chase Manhattan Bank, Bombay
D-RIBONOLACTONE—15 dms, Hoffmann-La Roche Inc, Hamburg
SANDALWOOD OIL—1 cs, A Chiris Co, London
7 cs, International Flavors & Fragrances Inc, Bombay
SEAWEEDMEAL—791 bgs, Coleman International Co, Dublin
SEEDLAC—200 bgs, H C Smith, Calcutta
250 bgs, C H Timm, Calcutta
800 bgs, Cillespie Rogers Pyatt, Calcutta
500 bgs, Mantrose Corp, Calcutta
50 bgs, H C Smith, Calcutta
350 bgs, Wm Zinsser & Co, Calcutta
50 bgs, Mantrose Corp, Bremen
SODIUM ALGINATE—13 dms, T M Duche & Sons, Glasgow
50 dms, Stein Hall & Co, Glasgow
SODIUM CYCLAMATE—20 dms, Frank Samuel & Co, Yokohama
SODIUM PERBORATE—200 bgs, Independent Chemical Corp, Bremen
SODIUM SILICOFLUORIDE—200 bgs, Copenhagen
SODIUM SULFATE—400 bgs, Dixon International, Hamburg
SPEARMINT LEAVES—230 cs, Alexandria
STARCH—587 bgs, Morningstar Paisley Inc, Rotterdam
STRYCHNINE SULFATE—1 cs, Byron Chemical Co, Calcutta
SULFANILIC ACID—9 dms, Geigy Chemical Corp, Rotterdam
TAPIOCA—660 bgs, Morningstar Paisley Inc, Itajai
TAPIOCA FLOUR—7,707 bgs, Stein Hall & Co, Itajai
2,367 bgs, Manhattan Adhesives Corp, Itajai
2,240 bgs, Poons Co, Kohsichang
TARTARIC ACID—50 bgs, Frank Samuel & Co, Marseille
60 dms, Frank Samuel & Co, Marseille
THEOBROMINE—3 dms, Rotterdam
THYME LEAVES—50 bls, Seeke & Kade, Marseille
TITANIUM DIOXIDE, ANATASE—18 bgs, Riches Nelson, Bilbao
TRAGACANTH GUM—295 bgs, Am-Iran Corp, Khorramshahr
614 bgs, Khorramshahr
TRICHLORETHYLENE—451 tons, Liverpool
2 bbls, Rotterdam
UMBER—40 bgs, C B Chrystal Co, Larnaca
UREA—2,000 bgs, Okura & Co N Y, Yokohama
2,000 bgs, Graymor Chemical Co, Yokohama
UREA, SYNTHETIC—3,000 bgs, Chemical Manufacturing Co, Glasgow
VANILLA BEANS—25 cs, Gillespie & Co, Marseille
91 cs, Madagascar Agencies, Tamatave
71 cs, Far Eastern Commodities Corp, Tamatave
50 cs, F Huber & Co, Tamatave
16 cs, L A Champon & Co, Tamatave
78 cs, J Manheimer, Tamatave
78 cs, Gillespie & Co, Tamatave
21 cs, Tamatave
VANILLIN—20 dms, H Bruckmann & Lorbacher, Rotterdam
VETIVER OIL—2 dms, Florasynth Lab, Tamatave
2 dms, Port Au Prince
WATTLE BARK—1,046 bls, Hammond & Carpenter, Durban
WATTLE EXTRACT—1,088 bgs, International Products Corp, Durban
XYLENOL—1 dm, Fairmount Chemical Co, Rotterdam
ZINC CHLORIDE—42 dms, Riches Nelson, Antwerp

Los Angeles

ASBESTOS FIBER—3,600 bgs, Johns Manville Corp, Hong Kong
4,877 bgs, Johns Manville Corp, Singapore
CASSIA—240 bgs, Hismoco American Co, Singapore
COLORS, DRY—300 bgs, Frank D Davis Co, Bremen
COPPERAS—500 bgs, Iwai N Y Inc, Kobe
COPRA—1,000 tons, Procter & Gamble Co, Cagayan de Oro
500 tons, Surigao
500 tons, Jagna
CUMIN SEED—39 bgs, W L Willner, Hong Kong
EARTH COLORS—675 bgs, Naftone Inc, Bremen
FISHLIVER OIL—95 cs, Yokohama
FORMIC ACID—50 dms, Rotterdam
MONOSODIUM GLUTAMATE—200 dms, Yokohama
PEPPER, WHITE—35 bgs, Singapore
PIMENTO—200 bgs, Hamburg

Philadelphia

ANTIMONY OXIDE—233 bgs, National Lead Co, Liverpool
ARGOLS—500 bgs, Leixoes
ASBESTOS FIBER—1,600 bgs, Keasby & Mattison, Liverpool
1,600 bgs, Manchester
BEESWAX—25 bgs, Machado & Co, Ciudad Trujillo
CAMPHOR—154 cs, Phila National Bank, Kobe
CASEIN—500 bgs, National Casein Co, Gdynia
300 bgs, Irving Trust Co, Buenos Aires
DILL SEED—100 bgs, Bombay
FLUORSPAR—2,019 tons, Tampico
GYPSUM, CRUDE—6,264 tons, U S Gypsum Co, Hantsport
MAGNESIUM OXIDE—600 bgs, Darlington Chemicals Inc, Liverpool
MANGROVE EXTRACT—1,000 bgs, Saxe Cutch Corp, Singapore
MENTHOL—60 cs, Vicks Chemical Co, Santos
MOLASSES—16,029 tons, Manati
15,872 tons, Point A Pitre
MYROBALANS—745 bgs, Vizagapatam
NAPHTHALENE—1,451 bgs, Plastics & Coal Chemical Co, London
875 bgs, Tar Residuals Inc, Gdynia
850 bgs, Antwerp
OLIVE OIL—30 dms, Seville
POTASSIUM CYANATE—200 dms, Hamburg
QUEBRACHO EXTRACT—2,174 bgs, Tan American Corp, Buenos Aires
2,374 bgs, Tanimex Corp, Buenos Aires
SODIUM BICARBONATE—983 bgs, Chemical Manufacturing Co, Liverpool
UREA—1,996 bgs, Chemical Manufacturing Co, Liverpool
1,000 bgs, Genoa
VANILLA BEANS—25 cs, Marseille

San Francisco

ALUMINOUS OXIDE, ABRASIVE GRAIN—177 kgs, W C Auger & Co, Liverpool
AMMONIUM CHLORIDE—360 bgs, C M C Chemicals, Manchester
BONEMEAL—787 tons, Stauffer Chemical Co, Buenos Aires
CALCIUM CARBONATE, PRECIPITATED—533 bgs, Mattoon & Co, Liverpool
CAMPHOR POWDER—25 cs, A J Fritz, Keelung
CINNAMON QUILLS—25 bls, Wm E Martin & Son, Hong Kong
25 bls, Hong Kong
COPRA—200 tons, Wells Fargo Bank, Cebu
500 tons, Pacific Vegetable Oil Corp, Cebu
500 tons, Procter & Gamble Co, Cebu
500 tons, Cargill Inc, Dumaguete
500 tons, Wells Fargo Bank, Iloilo
300 tons, Toftman Corp, Iloilo
FISHMEAL—4,348 bgs, Marine & Animal By Products Corp, Callao
2,174 bgs, Marine Midland Trust Co, Chimbote
6,522 bgs, Albumina Supply Co, Huacho
GLUE—200 bgs, F P Dow, Liverpool
LUBRICATING OIL—150 dms, Asiatic Petroleum Corp, Manchester
MACE—28 cs, Magna Enterprises, Singapore
MONOSODIUM GLUTAMATE—250 cs, Ajinomoto Co, Yokohama
NUTMEG—28 bgs, Port of Spain
147 bgs, Singapore
PEPPER, BLACK—525 bgs, Singapore
PEPPER, RED—100 bgs, California Commodities Corp, Kobe
150 bgs, Pan Asiatic Trading Co, Yokohama
SESAME OIL—50 cs, A J Fritz, Kobe
SODIUM CYANIDE—100 dms, C M C Chemicals, Liverpool
SODIUM PHOSPHATE—226 cs, West Coast Spice Co, Rotterdam
TAPIOCA FLOUR—1,000 bgs, Morningstar Paisley Inc, Kohsichang
924 bgs, Poons Co, Kohsichang
UREA—2,500 bgs, Atkins Kroll & Co, Amsterdam
ZIRCON SAND—982 bgs, Mattoon & Co, Newcastle

NEWEST DATA
including Water-Dispersible Beadlets

Laboratory Data Sheet

VITAMIN A ROCHE*

Liquid vitamin A palmitate and acetate
Dry vitamin A acetate powders
Dry vitamin A palmitate beadlets

VITAMIN A

Roche has all popular types for your manufacturing needs

Summarized below for your convenience are facts about the many types of Roche vitamin A and vitamin A & D combinations which meet practically all pharmaceutical needs. Samples and technical literature are yours on request — without charge, of course. Ask your Roche salesman or write.

	Type & Name	Usage	Potency (in U.S.P. units per gram)	Additive	Stability	Mesh Size
LIQUID TYPES	**P1MO** **Vitamin A palmitate** ***(liquid)***	In tablets, aqueous dispersions, capsulated products	1,000,000	Edible oil only, for standardization	Excellent	—
	P1MO/BH **Vitamin A palmitate** ***(liquid)***	as above	1,000,000	Edible oil plus anti-oxidants (butylated hydroxyanisole and butylated hydroxy-toluene).	Excellent	—
	P1.3 **Vitamin A palmitate** ***(liquid)***	For oil-free prepara-tions	1,350,000 to 1,450,000	None	Excellent	—
	A1MO **Vitamin A acetate** ***(liquid)***	In oil solutions and gelatin capsules	1,000,000	Edible oil only, for standardization	Excellent	
BEADLETS	**Type 250-S** **Vitamin A palmitate** ***Dry Beadlets***	Water dispersible. For dry products which will be reconstituted with fluids, such as dry cereals, etc.	250,000	None	Excellent	Essentially 30-80 free-flowing, for uniform distribution in dry mixes.
	Type 500-S **Vitamin D_2** ***Dry Beadlets***		500,000	None	Excellent	
POWDERS	**Type 325A-32.5D** **Vitamin A acetate &** **Vitamin D_2** ***(dry)***	For tablets, capsules, vitamin-fortified powdered supplements	A—325,000 D_2—32,500	None	Excellent	40 and 60
	Type 325 **Vitamin A** ***(dry)***		325,000	None	Excellent	40 and 60
	Type 500 ***(dry)*** **Vitamin A acetate**	For dry preparations: tablets, capsules, vitamin-fortified powdered supplements	500,000	None	Excellent	40 and 60
	Type 500A-50D **Vitamin A acetate &** **Vitamin D_2** ***(dry)***		A—500,000 D_2—50,000	None	Excellent	40 and 60
SPECIAL	***For research and special production.*** **Type P1.8/BH (liquid) — vitamin A palmitate; 1.65 to 1.8 million U.S.P. units per gram. Type A2.9 (crystalline) — Vitamin A acetate; 2.8 to 2.9 million U.S.P. units per gram. No oil addition. Antioxidants in Type P1.8/BH: butylated hydroxyanisole and butylated hydroxytoluene. Both types need special handling.**			**Packing** All Roche vitamin A is packaged to insure safety in transit and ease of handling in pharmaceutical operations.		

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Drugs, Fine Chemicals

A new, highly-potent polio vaccine—purer faster-to-immunize, and roughly four times more expensive than the conventional Salk vaccine—was introduced last week by a trusted name in the drug business, immediately following US Public Health Service approval of an initial lot of 120,000 doses. Called "Purivax," it is of the killed-virus type and is given by injection. It will be distributed this month to areas, principally in the South and Southwest, where the incidence of polio has been especially high in recent years.

Initially, "Purivax' will be priced to physicians at $1.90 a dose, compared with the 50 cent tag on Salk vaccine, but a reduction probably will be effected as soon as national distribution, expected this fall, is achieved.

Just as in the Salk vaccine offered by this drug firm, the type one component in "Purivax" is the Parker strain of the polio virus. This is a substitute for the first-used Mahoney strain, which has been frowned upon by health authorities for safety reasons, but which is nonetheless a component in the three-strain vaccines sold by other manufacturers.

In addition to this margin of safety, "Purivax" has other built-in advantages that may offset the current, high price. According to the manufacturer, it is highly concentrated, allowing a more convenient dosage form (0.5cc.) especially from the pediatric standpoint; comes close to being effective 100 percent of the time due to uniform high potency; is free from monkey kidney antigen; and is faster-to-immunize—two 0.5cc. doses of "Purivax" one month apart will result in 90 percent immunity within sixty days, compared with 60 percent for the Salk vaccine. This fast effectiveness will be of great value, of course, should there be a major outbreak of polio and the consequent immediate need to immunize all the people in any given area as quickly as possible.

The announcement of "Purivax" at a press conference last week—without hoopla, incidentally—climaxed five years of intensive research. But despite the time and money expended on its development, the new vaccine is not likely to replace conventional Salk vaccine immediately—if ever. Rather, indications are that its applications will be specialized, one such being the multiple vaccine shots given infants.

If demand grows, the firm says it will begin national distribution sometime this fall. Adequate supplies of the vaccine—which takes eight months to produce—will be available at that time reportedly.

Antibiotics—While demand is seasonally slow, penicillin prices have not fluctuated in response. Accounting at least partially for this stability, it's said, is the fact that prices are at rock-bottom with the only course open an upward one. Potassium penicillin is listed at $21 per billion units, procaine penicillin at $23.

Not surprisingly, bulk penicillin exports dropped slightly in May, to 6,730,724 billion units from 7,158,116 in April. An additional 7,157,799 million units, valued at $859,287, were shipped abroad in dosage forms.

Like penicillin, DHS and streptomycin prices are unchanged at levels established several months ago: $35 to $26 per kilo, depending upon quantity. Domestic demand is fair, supplies adequate.

Streptomycin exports in May were 6,811,537 grams, and valued at $254,239.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
59.93	59.93	60.25	60.25

For Current Prices See Page 11

Of the total, India took 4,685,000 grams at $144,063, and Mexico 1,100,000 grams at $73,000.

Exports of DHS the same month were 11,738,000 grams, valued at $370,513. Major buyers were: India 7,942,000 grams at $248,116; Brazil, 1,110,000 at $30,030, and Korea 673,000 grams at $21,147.

Ascorbic Acid—Reported here last week was the substantial drop in imports of ascorbic acid in May—to 7,936 pounds from 41,073 in April—which prompted the suggestion that the recently lowered prices of the vitamin had somehow turned back the foreign competition. Now, a second stabilizing factor is seen.

Equally as important as the decline in imports was the big rise in exports, to 106,550 pounds from 34,050 pounds in April, equal to considerably more than twenty-five percent of domestic production the earlier month.

Valued at $306,460, according to the Commerce department, May exports of ascorbic acid went to: Switzerland 14,330 pounds at $45,500; Belgium 13,794 pounds at $36,702; Argentina 13,559 pounds at $37,860; Brazil 13,207 pounds at $37,587; Australia 11,023 at $27,000, and other countries located for the most part in South America.

Aspirin—While aspirin demand in the US is growing by leaps and bounds, exports are said to be trending downward. This is said to be due to increased production of everybody's pain-killer in Canada, which has been traditionally a big buyer of US material. Nonetheless, exports rose in May from the April level. Of the total shipment of 101,674 pounds, which was valued at $51,058, Columbia received 43,000 pounds, the Philippines 24,000. Several other countries purchased smaller amounts.

Aspirin prices were boosted 1 cent a pound across the board at the beginning of this month. The first change since 1957, it reflected higher operating costs, spokesmen for leading manufacturers said.

Caffeine—In May, when demand for caffeine is especially strong from cola bottlers, imports were 114,542 pounds, up from 77,846 the month previous. The entire quantity was valued at $187,798 and dutied at $58,415, according to Census bureau reports.

As usual, the major suppliers of caffeine to the US in May, were: West Germany 74,072 pounds, valued at $89,542, dutied at $37,776; Netherlands 28,500 pounds, valued at $68,596, dutied at $14,535; and the United Kingdom 11,970 pounds, valued at $29,460, dutied at $6,104.

Routinely good demand is currently reported. Pharmaceutical interest, now

Drug and Fine Chemical Exports: May

Exports of selected drugs and fine chemicals for the months of April and May, 1960, as reported by the Bureau of Census, were as follows:

		May	April
Analgesics and antipyretics	lbs.	32,041	9,271
Antibiotics, n.e.c.	grs.	8,135,539	23,186,099
Ascorbic Acid	lbs.	106,550	34,050
Aspirin	lbs.	101,674	63,379
B-complex (excluding B_1 and B_{12})	lbs.	28,147	38,685
Bacitracin	100-million-units	16,828	13,746
Dihydrostreptomycin, bulk	gms.	11,738,000	10,348,000
Pectin and preparations	lbs.	38,953	48,833
Penicillin, bulk	billion units	6,730,724	7,158,116
Streptomycin, all forms	gms.	6,811,537	4,453,240
Sulfa Drugs	lbs.	52,945	80,992
Thiamin	lbs.	5,350	5,695
Vitamin A bulk and medicinal	lbs.	8,819	13,401
Vitamins, n.e.c.*	lbs.	84,612	60,967

* Not elsewhere classified by the Census bureau.

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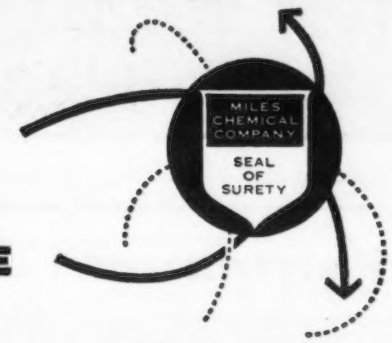

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Drugs, Fine Chemicals

rather slow, should pick up as fall approaches, sources say.

As is apparent from import figures above, the caffeine market here is still quite competitive. But despite this, domestic price schedules remain unchanged, and on the strength of trade reports, no changes downward are anticipated.

Camphor—May imports of natural refined camphor totaled 16,240 pounds, and were valued at $7,081 and dutied at $483. Japan was the sole supplier.

Synthetic camphor imports, which amounted to 134,700 pounds, came from the United Kingdom (95,200 pounds, valued at $35,099, and dutied at $4,755), and West Germany (39,500 pounds, valued at $15,587 and dutied at $1,971.)

Cortisone—Prices for cortisone and hydrocortisone have steadied, something of a phenomenon in a market that has grown progressively weaker during the past year.

Cortisone is listed at $1.05 to $1.75 a gram, hydrocortisone at $1.10 to $1.90. In each cease, the rather broad range reflects the differing views of competitors.

Perhaps, the geographical locations of the respective manufacturers explains the price differential. If such is actually the case, the market is apparently weaker in the East, where the low of the range is reported.

Exports of hydrocortisone in May were valued at $154,284. On the buyer's roster; West Germany $37,085; Japan $29,400; Venezuela $12,195; and Mexico $9,142.

As with hydrocortisone, volume of cortisone exports is not disclosed by the Commerce department as this might be a clue to the individual operations of competitor shippers. Value, of course, is, and in May this was $120,523. Buying cortisone (ACTH and derivatives are included too) that month were: Cuba $30,563; Union of South Africa $23,724; Italy $20,741; Canada $10,971; and Panama $6,423.

Folic Acid—The Food & Drug Administration last week (July 13) proposed a regulation requiring that the folic acid content of vitamin preparations sold across the counter be limited to 0.4 of a milligram to the daily dose. This would mean, of course, that larger amounts could be sold only under a doctor's prescription.

Manufacturers of the vitamin and other interested parties were given fifteen days in which to file written comments on the proposal.

FDA's proposal follows testimony by Dr. Barbara Moore before the senate antitrust and monopoly subcommittee on June 2, in which the former medical officer of the agency cited information, which she had gathered, showing that folic acid can mask the symptoms of pernicious anemia, thus interferring with proper diagnosis of the disease.

Dr. Moore, who resigned her position with FDA when she discovered that her employer had tentatively listed folic acid as a safe food additive, was supported by six of nine medical experts that acted as consultants to FDA in June. The six recommended that folic acid not be used in multivitamin preparations sold without a doctor's prescription.

Another panel of experts, recommended by the National Academy of Sciences, held a different view, however. This panel maintained that the only danger of folic acid in multivitamin preparations is to the few patients having pernicious anemia. Consequently, it recommended the limit of 0.4 of a milligram for a daily dose, and suggested further study.

Folic acid is generally included in multivitamin preparations sold as food supplements. Amounts vary, however, and for this reason, FDA could offer no information on how many of them would be affected by the new regulation.

One leading vitamin tableter, responding to FDA's announcement, said that its two principal non-prescription products did not contain folic acid and those that did contain more than 0.4 milligram were normally prescribed by physicians.

Quinine—Instead of importing quinine, the US has taken to exporting it. In May, 2,256 ounces of the sulfate and hydrochloride salts were shipped abroad, bringing the sellers $1,753. Buying were: Canada 800 ounces at $660; Honduras 800 ounces at $290; Cuba 576 ounces at $302, and Guatemala 80 ounces at $501.

No quinine sulfate was imported in May, according to Commerce department statistics, and quinidine imports the same month dropped to 51,815 ounces from 92,929 in April.

Valued at $36,653, the May shipments originated in West Germany (27,000 ounces, valued at $20,250), and the Netherlands (24,815 ounces, valued at $16,403).

In the basket category, salts and alkaloids from cinchona bark, were shipments totaling 150,616 ounces. This material, valued at $38,232, came from West Germany (115,325 ounces, valued at $31,090), and the Netherlands.

Trade reports indicate that demand for quinine salts is spotty and little better than routine. This, however, has not disturbed the price structure which was set up last March to reflect higher replacement costs.

Still the big question is what General Services Administration plans to do with its 13.8 million ounce stockpile. Mainly quinine sulfate, this material was almost sold last winter. In fact, it was only at the last minute that GSA, perhaps, under pressure from competing interests, refused the 7c. an ounce bid as inadequate. Assumedly, GSA will reoffer the stockpile within a month or two.

Sulfa Drugs—As one might logically expect at this time of year, demand for sulfa drugs domestically is slow. Interest is likely to pick up shortly, however, as pharmaceutical makers get into fall production.

Exports of sulfa drugs in May totaled

—*Continued on page 58*

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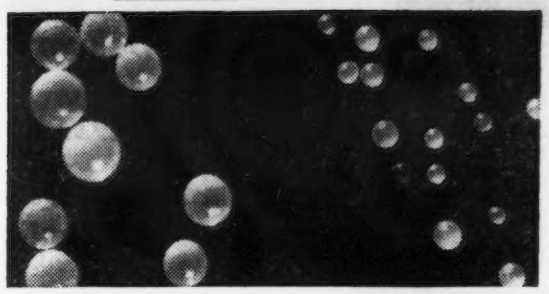

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Drugs, Fine Chemicals

—Continued from page 56

52,945 pounds and were valued at $571,633. Buyers were many and located 'round the world.

Of the total, 2,825 pounds were sulfathiazole; 1,228 pounds sulfadiazine; and 48,892 pounds sulfonamide drugs not specifically classified. Value of drugs in these categories was, respectively: $17,698; $12,484; $541,451.

Domestic prices are steady. Sulfanilamide, reduced and advanced within the span of a few months earlier this year, is firm, reportedly, at the higher level—$1.50 a pound in 1,000 pound lots, freight equalized.

Botanicals

With the exception of a further advance for agar agar, price activity last week was absent. The lack of adequate crude material saw the quote on USP Kobe No. 1 strip go to $2.65 a pound. Korean agar, however, was priced slightly lower at about $2.40.

Dealers still report only limited arrivals of domestic botanicals. The situation could change in a week or so, at which time they say, some new prices may be established. Many of the volume items, such as witch hazel leaves, are in very short supply. Offerings of senega root are few and far between.

Copaiba Balsam—Routine inquiry, adequate supplies are reported by dealers here. Quote, according to one market source, is 60c. to 65c. a pound, unchanged.

Tolu Balsam—Quote on tolu balsam has headed upward since the beginning of the year and currently stands at $3.50 to $3.65 a pound, the level in effect for several weeks now. Moderate demands, adequate supplies are noted.

Flavor, Perfume Goods

—Continued from page 4

lion pounds reported for 1958. Sales of cyclic flavor and perfume materials were 22 million pounds, valued at $32 million, compared with 21 million pounds, valued at $31 million in 1958.

The individual chemical in the cyclic group that was produced in the greatest volume in 1959 was methyl salicylate (3 million pounds), the commission notes.

Production of synthetic sweeteners, including derivatives of cyclohexane-sulfamic acid and saccharin, totaled 3 million pounds. Sales amounted to 2.5 million pounds, valued at about $4 million.

Output of acrylic flavor and perfume materials totaled 20.5 million pounds—11 percent more than the 18 million pounds reported for 1958. By far the most important of the acyclic materials was monosodium glutamate, production of which totaled 20 million pounds.

Sales of acyclic flavor and perfume materials amounted to 21 million pounds, valued at $22 million, compared with 19 million pounds, valued at $21 million, in 1958.

Statistics on production and sales of flavor and perfume materials in the commission's preliminary report are more than 90 percent complete. Complete statistics will be given in a final report on production and sales of synthetic organic chemicals in 1959, which will be issued later this year.

Hoechst in US Drugs

—Continued from page 5

Since then, however, the company has been overshadowed somewhat by the more up-and-coming young drug firms.

Lloyd, however, still offers Hoechst exactly what the German company had been known to want for a long time: a solid, old American firm with a sterling reputation is something on which the Germans could build their new American venture.

Lloyd has been in the ethical drug business for ninety years. It was one of the founders of the old American Drug Manufacturers Association, now Pharmaceutical Manufacturers Association.

Down through the decades, the Cincinnati company has been regarded as something of a drug pioneer. Recently the company broke trail for the various uses of cobalt in the treatment of anemia. At this moment another development is taking place, a Lloyd cobalt chelate which will be introduced to the medical profession within the next few months.

The Hoechst interests, based at Frankfurt (Main)-Hoechst, in West Germany,

MOVES UP: Milton S. Lasdon, president of Nepera Chemical Company, Harriman, N.Y., named senior vice-president of the parent firm, Warner-Lambert Pharmaceutical Company, Morris Plains, N.J. Mr. Lasdon's old job at Nepera goes to Edward D. Alper.

were formed a century ago. They have a notable history in the world of medicine and have become world famous for their research and synthesis efforts.

Many of the discoveries made by the research scientists of Farbwerke Hoechst AG. decisively influenced the development of pharmaceutical chemistry and therapy. Some sixty years ago, the first efffective treatment of syphilis was instituted by Farbwerke Hoechst AG which founded modern chemotherapy by the discovery of "Salvarsan."

Later, Farbwerke Hoechst AG developed "Procaine," another first. It was the original local anesthetic, and is now used in every part of the world, primarily in the dental field.

The first diphtheria serum antitoxin was developed by a research collaborator of Farbwerke Hoechst AG, Emil von Behring, whose work in immunology won him the Nobel Prize in October, 1901.

In recent years Hoechst scored with its oral anti-diabetic agent, which satisfactorily controls the diabetes of more than a million patients throughout the world. It it known as "Orinase" in this country, but is called "Rastinon" in the rest of the world.

Mint Suppliers Given Time To Prove Pesticide Safety

Food & Drug Adminstration has granted additional time—until March 6—for mint oil suppliers to gather scientific evidence of the safety of a chemical pesticide found to be a residue in the mint oil.

The pesticide is 1,1-bis (p-chlorophenyl)-2, 2, 2-trichloroethanol. Pending the issuance of a tolerance regulation, or until March 6, 1961, which ever occurs first, FDA will permit the marketing of mint oil containing not more than 100 parts of the chemical per million.

The residue occurs from use of the pesticide on fresh mint leaves for control of mites.

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OPD's Bookshelf

Saga of Chemistry

One of Germany's leading organic chemists who has contributed vitally to the recent growth of the German chemical industry has put together a popular history of his favorite science, titled THE STORY OF CHEMISTRY.*

As mostly ancient history, throwing new light on the beginnings of the science in Egypt and Greece, the book will interest some. But for this reviewer the book does not devote enough time and space to the progress made in the last forty years. What little is reported of recent chemistry stresses the German contribution, with inadequate recognition of American leadership in the field.

* THE STORY OF CHEMISTRY. By Georg Lockemann. 277 pages. Philosophical Library. New York. $4.75.

Fundamentals

CHEMICAL PERIODICITY* is another in the Reinhold series of textbooks on physical and inorganic chemistry. Purpose of the text is to present inorganic chemistry with greater emphasis on its fundamental unity than has ever before been possible.

The book examines what is already known, studying the relationship among the elements, but probing beneath the superficial chain of cause and effect to find the underlying principal.

The upshot is an expanded concept of electronegativity leading to interpretations of chemistry that are to some extent novel. However, this permits a roughly quantitative insight into, and to some extent corroborates, what has long been accepted qualitatively or intuitively as reasonable.

* CHEMICAL PERIODICITY. By R. T. Sanderson. 330 pages. Reinhold Publishing Corporation, New York. $11.75.

Steroids

In 1949, discovery of the therapeutic effects of cortisone on rheumatoid arthritis marked the beginning of intensive research in the steroid field. What has been learned of the organic chemistry and synthesis of steroids is gathered together in BIOCHEMISTRY OF STEROIDS*—an excellent supplement to the classical treatise, STEROIDS, by Fieser and Fieser.

After making clear to the chemist the structure and nomenclature of a class of steroids, the author discusses it in each case with respect of distribution, biosynthesis, metabolism, physiological significance, structural specificity, and analytical determination. The treatment is erudite throughout and not without grace.

* BIOCHEMISTRY OF STEROIDS. By Erich Heftmann and Erich Mosettig. 299 pages. Reinhold Publishing Corporation, New York. $6.90.

Plastics Metallizing

METALLIZING OF PLASTICS* is another in the Reinhold series on plastics applications. Methods are described in detail for carrying out every commercial metallizing process for plastics or other non-conductors. This is about the first book to treat on the actual production procedures, formulations and techniques of all known metallizing methods.

Some of the methods detailed, for example, are the copper film process, deposition of electroless nickle coating, the new-molded conductive processes, gas plating, the deposition of thick evaporated films and others.

METALLIZING OF PLASTICS. By Harold Narcus. 208 pages. Reinhold Publishing Corporation, New York. $5.50.

Drug Research Cost Estimate Confirmed by Census Bureau

The drug industry's estimate that it spent $170 million on health research in 1958 has been confirmed by the government, Pharmaceutical Manufacturers' Association reports.

Some question over the accuracy of the industry's estimates arose when the National Science Foundation recently indicated that only $188 million had been spent by the industry for this purpose in 1958.

Subsequent correspondence concerning the apparent discrepancy revealed that research and development conducted by companies having drug divisions but whose predominant activities are in chemicals or other products was not included in the drug industry's figures of the Science Foundation. The foundation based its estimate on figures supplied by the Bureau of Census.

Nylon Tire Cord Battle Shaping Up in Australia

A nylon tire cord battle may be shaping up in Australia between Allied Chemical Corporation and British Nylon Spinners.

The UK concern says it will expand plant capacity for tire yarn at Bayswater, Victoria, at a cost of around $14 million. This will double the BNS investment Down Under.

British Nylon Spinners, jointly owned by Imperial Chemical Industries, Ltd., and Courtaulds, Ltd., also indicates it will reduce nylon yarn prices in the commonwealth.

Nearly two months ago, Allied Chemical disclosed that it has teamed up on a $5 million nylon tire cord venture with Polymer Corporation (Pty), Ltd., of Australia (OPD, 5/30/60).

A jointly-owned company—Allied Polymer Pty., Ltd.—will put up a plant that, reportedly, will be capable of producing all of Australia's current nylon tire cord requirements.

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Essential Oils, Aromatics

Three price advances and no declines showed up in the essential oils last week. Shortage of material caused cedarwood to go up 2 cents per pound; shortage of material and heavy demand are responsible for grapefruit's 25 cent per pound rise, and crop diseases are the cause of chenopodium's 10 cents per pound rise—according to essential oil dealers here in the New York area. Sandalwood is said to be maintaining its strength following the auctions in Mysore and not weakening as many essential oil men had predicted.

This item, from the Food & Drug Administration, ought to be of interest to mint oil suppliers and users.

FDA has designated March 6, 1961, as the deadline for mint suppliers to prove, scientifically, that a residue from a pesticide found in the oil is not harmful.

The name of the pesticide, used on the fresh leaves for the control of mites, is 1,1-bis(p-chlorophenyl)-2,2,2-trichloroethanol.

Until proof is submitted, FDA will allow the marketing of oil containing not more than 100 parts of the chemical per million parts of the oil.

The United States production of flavor and perfume materials in 1959 amounted to 47 million pounds. This is nine percent more than the 1958 output of 43 million pounds. (This information is from the public information department of the United States Tariff Commission in Washington.)

The statistics on production and sales of flavor and perfume materials in the Commission's preliminary report are more than 90 percent complete. Complete statistics, however, will be given in the Commission's final report on production and sales of synthetic organic chemicals in 1959, which will be issued later this year, according to the public information department.

Sales in 1959 amounted to 43 million pounds which were valued at $54 million. This compares with the 40 million pounds sold in 1958 which was valued at $52 million.

Production of cyclic flavor and perfume material in 1959 amounted to 27 million pounds—8 percent more than the 25 millian pounds reported for 1958.

Sales of cyclic flavor and perfume materials in 1959 were 22 million pounds, valued at 32 million, compared with 21 million pounds, valued at $31 million, in 1958.

The individual chemical in the cyclic group that was produced in the greatest volume in 1959 was methyl salicylate (3 million pounds).

In 1959 production of synthetic sweeteners, including derivatives of cyclohexane-sulfamic acid and saccharin, totaled 3 million pounds. Sales of synthetic sweeteners in 1959 amounted to 2.5 million pounds, valued at about $4 million.

The output of acrylic flavor and perfume materials in 1959 amounted to 20.5 million pounds—11 percent more than the 18 million pounds reported for 1958.

By far the most important of the acrylic materials was monosodium glutamate, production of which totaled 20 million pounds.

Sales of acrylic flavor and perfume materials in 1959 amounted to 21 million pounds, valued at $22 million, compared with 19 million pounds, valued at $21 million, in 1958.

The following items were excerpted by the Food Industries Division, Business and Defense Services Administration, from recent U. S. Foreign Services reports. They were listed under "Food Industry Items" in the Foreign Commerce Weekly published by the U. S. Department of Commerce.

Israel's next citrus crop was adversely affected by the hot winds which prevailed in May, according to a Ministry of Agriculture spokesman.

Exports cannot be expected to be more than 10 million boxes, contrasted to the 10.2 million boxes exported last season. This news comes from the U. S. Embassy in Tel Aviv.

Pepper exports from India in 1959 totaled 304,393 hundredweight according to official statistics, compared with 282,287 hundredweight in 1958 and 308,791 hundredweight in 1957.

About one third of the 1959 exports, 102,027 hundredweight, was exported to the United States, the largest buyer. This news comes from the U. S. Consulate General in Bombay.

Price Trends

Advanced

Cedarwood, 2c. per lb.
Chenopodium, 10c. per lb.
Grapefruit, 25c. per lb.

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	July 17, 1959
146.16	146.09	145.19	146.09

For Current Prices See Page 11

One of the leading essential oil, aromatic chemical companies has announced the development of a new line of odorants. These new odorants are designed primarily for the masking and rescenting of ammonia-based products that have harsh odors, such as liquid cleaners.

Besides covering up the unpleasant odor, these new odorants also impart a special scent identity to the product. Among those scents available are bouqet, pine, balsam, violet, and fruit.

Essential Oils

Cedarleaf — Dealers report a slight tightening in the market. Prices continue to range between $3.25 and $3.50 per pound.

One posible reason for the firming market, according to essential oil dealers, is the fact that the oil is produced primarily by farmers whose cedarleaf activties may have been curtailed by the excess snowfall last winter.

Trees from which the oil is extraced, are grown in New York state, Vermont, New Hampshire, Maine and in the Canadian province of Quebec. The producing season is from March until December, unless heavy snows interfere.

Weather conditions have a great deal to do with the economic conditions on cedarleaf oil—besides the question of snowfall. The oil is usually a little cheaper from April to June. This is the time when the farmers have time to produce oil before their fields need too much attention.

The usual way to get the oil is thus: Several farmers form a team and go into the woods to cut and distill the brush on a particular piece of land. The oil is found mostly in the branches and leaves, but usually the tree is cut down. Then the oil bearing parts are removed by knives. The trunks of the trees are not wasted because they are cut up and used as fuel. Even the branches are used as fuel after they have given up their oil.

It might be interesting, at this point, to mention that early in the 20th century it was common for persons to confuse oil of cedarwood and oil of cedarleaf. In the June 25, 1960, issue of the OPD, an article appeared, written by Earl Ayer, to help clarify misunderstandings that existed about the oils. We quote the following excerpts:

"Speaking of oil of cedar leaf there is confusion worse confounded. It is unfortunate that the oils distilled from the leaves and twigs of the red cedar (Juniperus virginiana) and of the white cedar (Thuya occidentalis) are both indiscriminately called "Oil of Cedar," for they are quite different in character and value. . . .

"The success of the distillation and the quality of the oil depends upon several elements, not the least of which is the experience of the distiller and the good faith with which he works.

"To secure the brush out of which the oil is to be distilled it has been found wisest to select scrub cedars growing from one to ten feet in height. These are cut off close to the ground, and then, holding the butt of the tree upward in the left hand, with several swift strokes of a keen knife, the twigs and leaves are shorn away.

"The best trees are the white cedars growing on high ground, well scattered so that the sun reaches all sides of the

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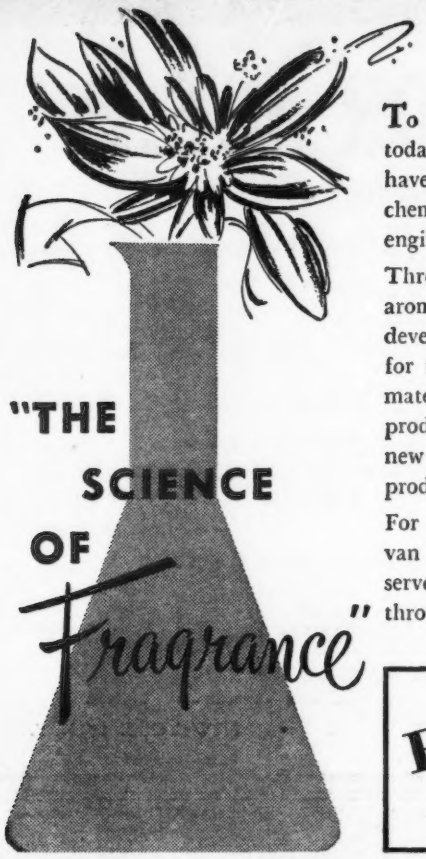

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Essential Oils

trees. Those growing to thickly and in swamps are far less valuable.

After the twigs have been cut from the trees they are gathered in wagons and taken to the stills, which vary in capacity and completeness according to the progressiveness of the owners."

Cedarwood—From some news sources comes the word that material is scarce. On spot, prices advanced 2c. per pound. From the previous low, 75c. per pound, it rose to 77c. per pound.

The oil is gotten from the Juniperus virginiana L. (fam. Cupressaceae) which is a slow-growing evergreen. It is found primarily in the southeastern part of the United States.

The oil is distilled mainly from the shavings and refuse left over after the manufacture of boards and shingles for cedar chests and the like.

Chenopodium—From its previous low, $4.15 per pound, this oil has advanced to $4.25 per pound. Some time back growers reported that their crops were afflicted by blight.

Demand for the oil is slow. Modern drugs have taken its place.

Citronella—News from source is that shipping prices for Formosa material are from 10 to 20 percent stronger. Spot price, however, remains at its previous level. 85c. per pound.

Dealers reported that Ceylon material is weakening. It continues to sell for $1.10 per pound, but feeling seems to be that it is in for a decline. One dealer speculated that the price would, within a few weeks perhaps, go below the $1 mark, but that it would not get anywhere near last year's low which was 54c. per pound.

In Formosa, it takes some six to eight months for the citronella plants to reach the size at which it is profitable to harvest them. Then it is usually the women and girls who chop down the grass with sickles.

The grass is harvested during most of the year, but the principal seasons are from December to mid January, from May to June, and from August to September.

Grass is never cut during the rainy periods. It is unwise to cut it at these times because it is likely to ferment while lying in the damp fields. Another reason it is not cut at these times is this: In order to distill a batch of wet or moist grass takes a lot more time and fuel than to distill a batch of dry grass.

Grapefruit—A firming market for some months now, grapefruit has advanced in prices. From its previous low, $3.25 per pound it has advanced to $3.50 per pound.

Good demand and moderate supply are said to be responsible.

Sandalwood—News from source is that the auctions at Mysore have been conducted and that the market is not weakened as was predicted by essential oil dealers. The spot price remains a firm $19 per pound with little hope in the near future that it will decline.

Informed news sources reported to this publication that a much smaller quantity of wood than was anticipated was offered for auction. Hence, the price at source will probably remain high.

There was some speculation on spot that the wood is available in Mysore, near the southern tip of India, but that the government authorities withheld part of it in order to keep the prices high.

Private individuals in Mysore do not own the sandalwood trees. They are all owned by the government.

Dealers on spot expressed some concern about the prospects of sandalwood oil prices continuing at their current high. They said the perfumers who regularly use the oil for their heavy or oriental compositions, cannot do without the oil, but they can hardly afford to pay today's inflationary prices.

Seeds and Spices

Cloves — Material from Madagascar is said to be reasonable in price.

Mustard — It has been reported that throughout the United States, that there is very little material on hand. The past crop is said to be almost completely used up; there is practically no carry over. Some number one Montana and Danish material is said to be available but in small quantities. There is also some number two Montana material available for pickle spice.

Ginger—Nigerian material is said to be reasonable in price.

Pepper — Prices for both black and white pepper advanced a bit last week. Malabar black went up 3 cents per pound —from 62 cents per pound to 65 cents per pound; Lampong black went up 3 cents per pound—from 62 cents per pound to 65 cents per pound, and Muntok white went up 4 cents per pound—from 82 cents per pound to 86 cents per pound.

Stocks in New York are said to be a bit heavier than usual at this time of the year. The reason is said to be because of the heavy arrivals at the first of the year.

Vanilla Beans—According to the Food & Drug Administration, there is a dispute over the proposed standards for vanilla products. The issue is whether the standards should require that the moisture content of the cured vanilla bean, used in making vanilla products, should be taken into account in present the weight of the vanilla bean.

One group feels that the beans should be considered on a dry basis and the other group says the beans should be considered on an "as is" moisture content of the bean.

The proposed standards will cover the vanilla extract, flavoring, powder; concentrated vanilla extract and flavoring; vanilla-vanillin extract flavoring and powder; and concentrated vanilla-vanillin extract and flavoring.

The question of standards for vanilla developed in the midst of consideration by the administration of the standards for ice cream.

There the unsettled question of labeling ice cream as artificially flavored if it contains vanillin has held up the issuance of the standard.

It is because the subject of vanilla standards and labeling of ice cream are so inter-related that it is now thought possible that the ice cream standards will be delayed still longer until the vanilla standard has been settled.

Petroleum Product Curb On Exports Is Relaxed

Export regulations covering some eighteen kinds of petroleum products have been revised by the Department of Commerce to permit shipment to most destinations without the necessity of applying for individual export licenses.

Included among the products are white mineral oil; red, pale and black oil; cylinder bright stock and cylinder steam-fitted stock; insulating or transformer oil; cutting oils; petroleum-based graphite greases and lubricants, and aviation gasoline, except jet fuel.

Styrene Sweepstakes

—Continued from page 3

burned as fuel, will be used along with benzene to produce the styrene monomer.

By entering the styrene race, Suntide is joining fast company. So far this year, Dow Chemical Company has announced it will jack up capacity by 200 million pounds—to 800 million pounds annually.

Further, Monsanto Chemical Company will add 200 million pounds to its capacity, with a total of 560 million pounds in place by 1962. Foster-Grant Company is adding 45 million pounds to its 105-million-pound-plant.

Cosden Petroleum Corporation is slated to go from 20 million pounds to 60 million pounds annually. Sinclair-Koppers Company will build a 70-million-pound plant.

Why the rush to expand? As OPD's capacity estimates for 1960 show, current potential is around the 1.6-billion-pound mark. Output of styrene monomer in 1959 was 1.56 billion pounds, very close to industry capacity and reportedly in excess of some designed capacities.

This breakneck pace has shown no signs of abatement. Output of styrene monomer during the first four months of 1960 was 584 million pounds, compared with 478 million pounds during the like period during 1959.

Production Pace Is Swift

Production for the first third of this year was at an annual rate of 1.752 billion pounds. This, according to trade observers, means one of two things:

- Capacities have been understated by producers.
- Capacities have been exceeded almost to a boiler-busting extent.

The consensus is that it's a little bit of both.

Future growth—and present strong markets—for styrene appear to be tied more and more closely to the growth of synthetic resins. Styrenated polyesters are particularly active, and strong call is being maintained for polystyrene.

While SBR rubber, long a large-volume consumer of styrene (it took about 33 percent in 1959), is expected to grow nicely, inroads made by cis-polybutadiene, polyisoprene, butyl and other modified rubbers not using styrene could make dents in SBR markets.

Right now, with naphthalene in tight supply, speculation is that Suntide could sell all it can make. It already has benzene capacity at Corpus Christi which could be used for its styrene plant.

Data Offered

Florasynth Laboratories, Inc., has issued a new and revised flavor catalog covering its line of **flavors, flavoring materials, essential oils, aromatics and resinoids** as well as certified food colors. Copies are available from the company's executive offices at 900 Van Nest avenue, New York 62, P. O. Box 12. Natural and imitation flavors, liquid and entrapped dry powdered flavors are listed, as are various flavor specialties. Also included are a number of recently-developed flavors.

Monsanto Chemical Company is offering a 16-page booklet describing the properties, uses, handling and testing of **acrylonitrile.** Copies are available without charge from the company's plastics division in Springfield, Mass. Featured in the report is a special chart showing reactions and derivatives resulting from organic syntheses of acrylonitrile.

Heyden Newport Chemical Corporation has issued a 10-page bulletin reporting on "Methylparaben" and "Propolyparaben" as **preservatives** for slightly alkaline or neutral foods. Copies are available from the Heyden Chemical Division at 342 Madison avenue, New York.

A new twenty-page bulletin describing "Ceramol," a specially formulated **emulsifier** for cosmetic and pharmaceutical applications, has been issued by Aceto Chemical Company. Copies are available from the company at 40-40 Lawrence street, Flushing 54, N. Y.

Food Machinery & Chemical Corporation has published a revised catalog of all of its **chemical products.** Copies of the thirty-six-page, two-color brochure are available from the advertising and publicity department of the company's chemical divisions at 161 East 42nd street, New York 17.

Foster D. Snell, Inc., has issued a booklet covering **"Asphalt, Tar, and Pitch."** Copies are available from the company's client relations department at 29 West 15th street, New York 11.

W. R. Grace & Co. has issued a booklet discussing applications of **high density polyethylene.** Copies of "101 Ideas in High Density Polyethylene" may be obtained from the company's polymer chemicals division at 225 Allwood road, Clifton, N. J.

General Mills, Inc., has issued through its chemical division two new bulletins treating **polyamide resins.** Copies are available from the division at South Kensington road, Kankakee, Ill. Technical Bulletin 11-B-1a covers compatibility and solubility of "Versamid" polyamide resins, and Bulletin 11-B-1b discusses the resins as constituents of ink.

Linde Company, a division of Union Carbide Corporation, is making available reprints of "Predicting Effects of Oxygen, Moisture and Fuel Additions on **Blast Furnace Operation** with Electronic Computers," a technical paper by A. L. Hodge. Copies may be obtained by writing to literature distribution department, 30-20 Thomson avenue, Long Island City, N. Y.

Vitamin Men Relax; FDA Acts on Folic

—*Continued from page 4*

of distribution proceed as promptly as possible.

• That products not properly re-labeled after a reasonable period of time be subject to regulatory action.

Except for persons with undiagnosed pernicious anemia, folic acid is harmless even at much higher levels, FDA says, and addition of the vitamin to diets of pregnant women is frequently prescribed.

The agency says it has no evidence that amounts of folic acid up to and including 0.4 milligram per day produce the masking effect on pernicious anemia.

FDA therefore proposes to extend to March 6, 1961, the application of the food additives amendment of 1958 to vitamin preparations containing not more than 0.4 milligram of folic acid.

Adds the agency: This proposal is based on the consensus of the medical authorities FDA has consulted that no undue risk to the public health would be involved.

Evidence of Safety Asked

The authorization to continue to use folic acid at 0.4 milligram or less until March 6, 1961, provides manufacturers the opportunity to submit scientific evidence of the safety of this substance at specific levels.

If such evidence is presented, continued over-the-counter sale of vitamin preparations containing not more than a specified amount of folic acid will be permitted. In the absence of such evidence, sale of preparations containing any amount of folic acid will be permitted only on prescription.

The danger of folic acid to anemic people first broke out into the open last month at the Kefauver drug industry hearings.

Dr. Barbara Moulton, former FDA medical officer, testified that she had gotten together almost enough evidence to make a case against the unlimited use of folic acid as a drug. Imagine her surprise, she said, to find it tentatively listed as a safe food additive.

This, she continued, resulted in her resignation from the agency. Because of Dr. Moulton's protest, folic acid was not listed as a safe food additive.

Squibb Comments on FDA Action

Commenting on the FDA action, E. R. Squibb & Sons Division of Olin Mathieson Chemical Corporation, New York, pointed out that its two principal non-prescription vitamin products are "Theragran" and "Vigran." These two preparations do not contain folic acid.

Most other Squibb over-the-counter vitamins that do have folic acid in their formulas contain the ingredient in amounts well within the limits set forth in FDA's proposed regulation.

"Those of our vitamin products that do possess folic acid in amounts of more than 0.4 milligram," the company reported, "are usually prescribed by physicians to meet specific needs and with their full knowledge of the folic acid content."

Folic acid, one of the vitamins in the B-complex group, is needed for normal function of the intestines and in the formation of red blood cells.

Drug Men Answering

—*Continued from page 5*

income. But if the pay-off was foreordained, neither management nor the money behind management had any way of knowing it, the booklet points out.

Within a year after introduction of the drugs, Schering's sales volume rose from $20 million to $47 million. Overnight, the company changed from a small firm to a relatively major one, and pushed on to sales of $81 million in 1959.

The moral, as expressed by Schering president Francis C. Brown: "All this is possible only in a social climate friendly to private endeavour."

This principle, if accepted by the reader, would echo in his mind as he shapes his attitude toward the legislation, recently introduced in congress, which assumes that it is possible to create a climate friendly to the general public which uses drugs, but not necessarily so friendly to the industry supplying them.

"Medicines used behind the iron curtain were discovered in the free world," Mr. Brown notes.

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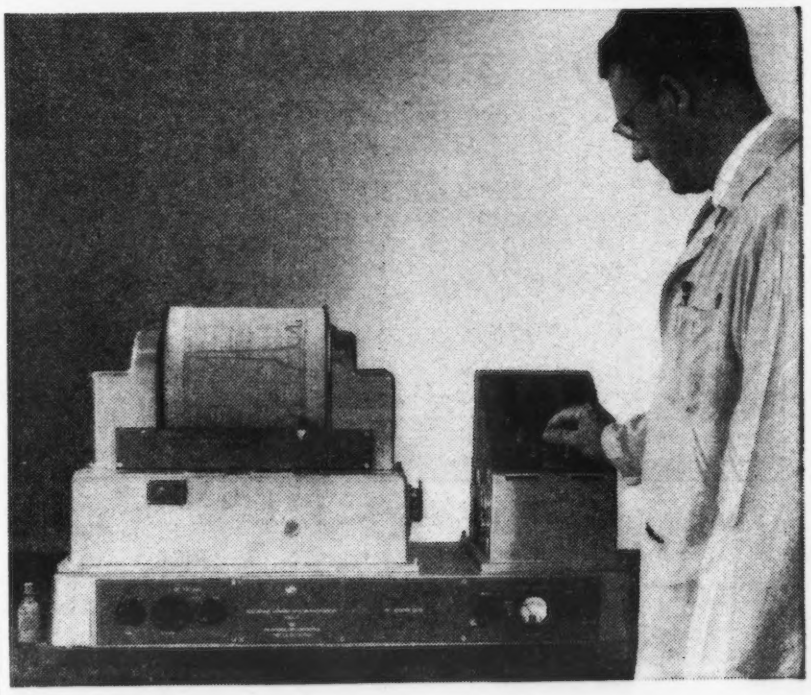

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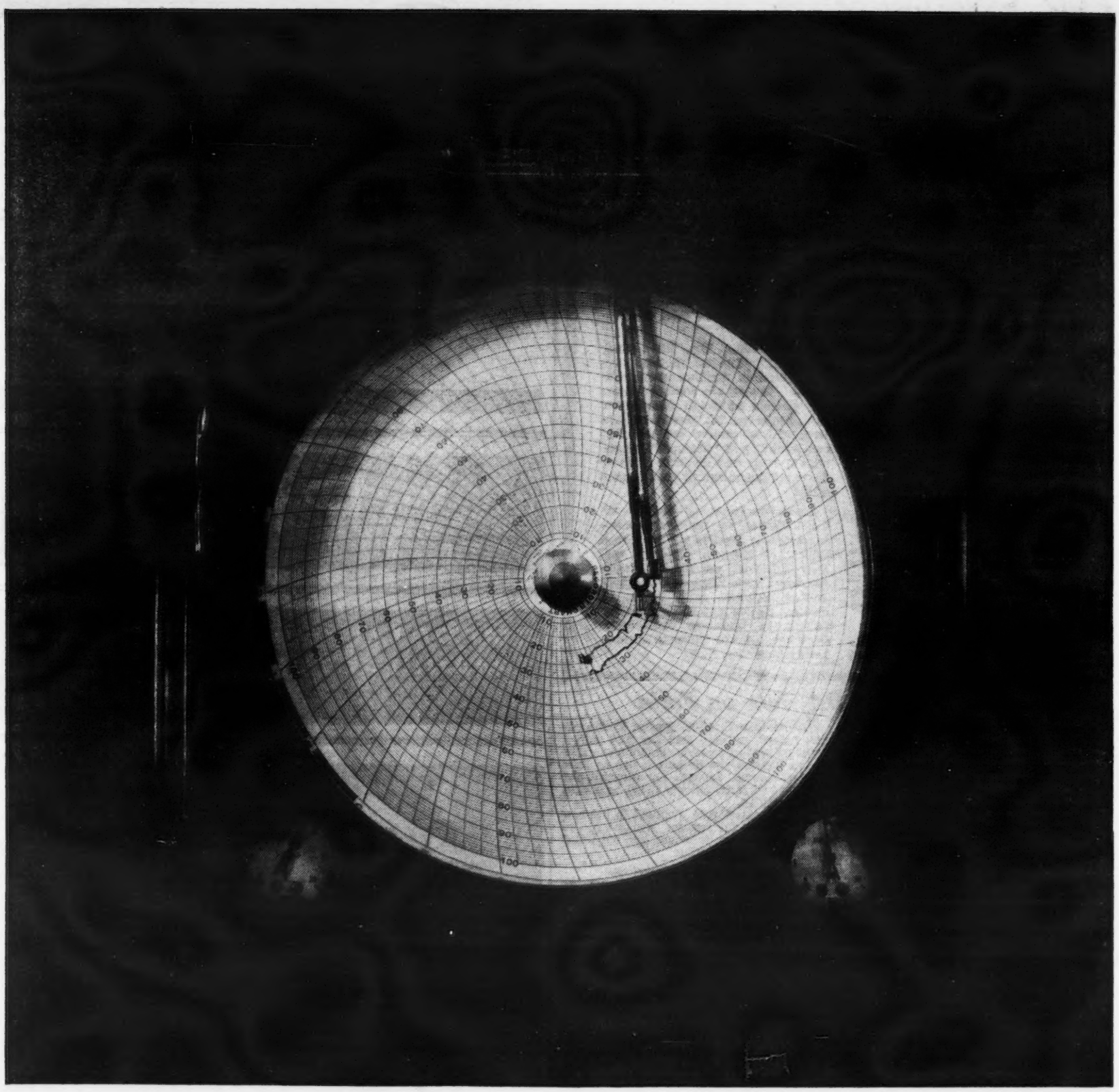

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Oils, Fats and Waxes

Trading in edible oils was restricted, the market reflecting the vacation shutdowns and the usual let up in demand in July. In edible oils, peanut oil was the firmest in the list because of limited stocks. Light sales took place at ¼ cent higher. Soybean oil was quiet, and irregular, but closed unchanged and quite steady. Corn and cottonseed oils also were easy and lower. Cash lard was stronger and continued to move upward.

Early advance in crude coconut oil was not maintained and market closed unchanged for the week. Offerings of copra for shipment were firmer and lifted $2 per ton.

Improved buying interest for tallow and greases for nearby delivery strengthened this market. Soapers absorbed moderate lots at ⅛ cent higher for spot requirements. Offerings were light and well held. Export business continued slow.

Linseed oil was lower, off ½ cent per pound, reflecting the recent decline of flaxseed and slow demand. Linseed oil acid also was reduced ½ cent. Slackened demand for imported castor oil brought increased offers and asking prices could have been shaded on firm bids. Tung oil was inactive and fairly steady for prompt delivery. Domestic tung oil also was well held.

Slow demand for soybean meal further weakened the market. Prices dropped $1 per ton. Linseed meal was quiet and unchanged.

Carnauba wax was firmer on spot with fatty grades lifted 2 cents per pound, because of the firmer Brazilian market. The Brazilian government's price support program is in full swing, with the government absorbing fatty grades at current floor prices. Yellow grades were quiet and unchanged. Increased offers of candelilla wax resulted in an easier tone locally. Quotations declined 4 cents per pound in some quarters.

Price Trends

Advanced

Carnauba wax, chalky, 1c. to 2c. per lb.
No. 3 Ceara, crude, 2c. per lb.
Parnahyba, crude, 2c. per lb.
Cocoa butter, 1c per lb.
Copra, $2.50 per ton.
Greases, ⅛c. per lb
Lard, cash, 1½c. per lb.
Peanut oil, crude, ¼c. per lb.
Refd., ¼c. per lb
Tallow, inedible, ⅛c. per lb.

Reduced

Candelilla wax, crude, 4c. per lb.
Refd., 4c. per lb.
Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Cottonseed oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb
Linseed oil, acid, ½c. per lb.
Linseed meal, expeller, 50c. per ton.
Linseed oil, ½c. per lb.
Soybean meal, $1 per ton.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	July 17, 1959
107.69	*112.43	112.25	114.81

* Corrected.

For Current Prices See Page 11

Vegetable Oils

Castor—Trading continued spotty. No. 1 Brazilian oil was offered at 19c. per pound, tankcars, New York, prompt delivery and shadable on firm bids. Domestic grades were unchanged and steady.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week		450.000
Previous week	385.500	5.166.000
Corresponding week, 1959		4.162.000
Total this year	3.177.450	50.544.000
Corresponding period, 1959	15.572.950	48.414.000

Coconut — Crude oil advance was not sustained and market closed unchanged. Tankcars were quoted at 13c. per pound, f.o.b. Pacific coast for July-August delivery. The New York market was steadier and crude was quoted at 15¼c., tankcars, for prompt delivery.

Corn—Trading was quiet. Crude was lower, with sales at 11½c. per pound, tankcars, f.o.b. mills, prompt delivery. Refined oil declined to 15.23c., tankcars, New York basis.

Cottonseed—Liberal liquidation in July because of circulating tenders in the month weakened futures on the New York Produce Exchange last week. Additional July tenders amounted to 135 and brought the total to 192 contracts to date. Market closed steadier, but slightly lower. Trade interest continued to absorb July and sold later months. Lower new crop crude also weakened deferred deliveries. Cash oil was quiet and easier. Refined salad was lower at 13c. to 13⅛c. per pound, tankcars, New York, prompt delivery. Weather in the cotton belt continued satisfactory.

Crude cottonseed oil was easy and lower. Tankcars were nominal at 10¼c. per pound, in the southeast; 10⅛c. in the Valley and 9¾c., Waco. New crop oil was quoted at 9¾c., tankcars, Valley for September delivery and 9½c., Waco.

Morocco was reported purchaser of 4,000 tons of bleached cottonseed oil for July shipment from Gulf ports.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, July 15, follow:

	Sales	High	Low	Close
		Cents per Pound		
July	568	11.59	11.39	11.55S
Sept.	507	11.74	11.43	11.57S
Oct.	124	11.67	11.37	11.46S
Dec.	133	11.57	11.30	11.39S
March	23	11.68	11.43	11.49 Bid
May	20	11.70	11.45	11.52@11.55

Total sales and switches, 1,375 contracts.

Linseed—Recent sharp break in flaxseed finally weakened the linseed oil market. Crushers reduced the price schedule ½c. per pound. Raw oil was quoted at 12.7c. per pound, tankcars, f.o.b. Minneapolis, for July-September delivery and 13.81c., f.o.b. New York. Withdrawals against existing contracts continued in good request.

Olive—Interest for shipment from Spain was reported slow. Prompt shipments were offered more freely at $56 per 100 kilos, drums, f.o.b. Spanish ports, with intimations that firm bids of $1 less would be acceptable. On spot, demand was quiet and prices were unchanged at $2.30 to $2.40 per gallon, drums, duty paid, according to quality and quantity.

Peanut—Crude continued scarce and higher. Tankcars were sold at 16¾c. per pound, f.o.b. mills, prompt shipment. Refined oil was quoted at 20c., tankcars, New York basis.

Peanut acreage in 1960 was placed at 1,583,000 acres compared with 1,646,000 acres last year and 10 year 1949-58 average of 2,059,000 acres.

Soybean—Market was irregular, closing steady and unchanged. Crude was quoted at 9c. per pound, tankcars, Decatur, July-August shipment. Refined salad oil was held at 11c., tankcars New York basis.

Yugoslavia bought 10,000 tons of soybean oil and was in the market for 10,000 tons more. United Arab Republic was expected to buy 5,000 tons early this week.

Soybean acreage for 1960 was estimated at 24,430,000 acres by the Department of Agriculture, compared with 23,173,000 acres harvested last year.

Stocks of soybeans on farms July 1 totaled 42,140,000 bushels against 35,966,000 bushels July 1 last year and the 10-year average of 16,007,000 bushels.

Tung — This market remained unchanged and steady, despite quiet demand. Imported oil was available at 23¼c. per pound, tankcars, New York, prompt delivery. Drums were unchanged at 24¾c. to 25½c., spot depending upon quantity. Domestic oil was maintained at 22½c., tankcars, f.o.b. mills, for July delivery.

Miscellaneous

Cocoa Butter—Market firmer, up 1c. Prices ranged from 58c. to 63c. per pound, spot, depending upon quantity.

market. Prices were lifted $2.50 per ton. Prompt shipment was quoted at $177.50 per ton, c.i.f. Pacific coast.

Flaxseed—Additional substantial bookings of flaxseed were accomplished on a to-arrive basis, spot purchases near a standstill. Official closing prices declined

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Oils, Fats and Waxes

additional 4c. to $2.83 a bushel, spot and to-arrive, basis Minneapolis. Rapid decline in spot prices has eliminated the differential between old and new crop bids. Increase in acreage was somewhat smaller than trade had anticipated. Crop conditions over most of the growing area were described as good to excellent, with prospect of bumper crop in widespread sections. Only one car traded in the spot market, while to-arrive bookings totaled 56 cars and 125,000 bushels in roundlots. Arrivals for all accounts amounted to 60 cars (2 for C.C.C.), against 104 a year ago. Shipped were 20 cars, against 46 last year.

Flaxseed production for 1960 was forecast at 32,209,000 bushels by the Department of Agriculture, compared with the final 1959 output of 22,709,000 bushels. The 1948-59 average was 38,076,000 bushels. Acreage was indicated at 3,364,000 acres compared with 3,132,000 last year. Yield per acre was placed at 9.6 bushels against the 1959 average of 7.3 bushels. Flaxseed stocks on farms July 1 totaled 912,000 bushels against 3,127,000 bushels July 1 last year and 10-year average of 2,370,000 bushels.

Fats and Greases

Greases—Steadier tone prevailed and quotations were slightly higher. Yellow was quoted at 5¼c. per pound, tankcars, delivered, with bids at ⅛c. less. Choice white was firmer with higher lard. Tankcars ranged from 7c. to 7⅛c. per pound, tankcars, same basis.

Lard—This market continued strong and advanced fractionally. Cash lard was lifted to 11.70c. per pound, drums, Chicago.

Tallow—Improved trading chiefly for soapers account, stiffened the market. Sales were made at an advance of ⅛c. The bulk of sales was for nearby delivery. Bleachable fancy was quoted at 5⅞c. per pound, tankcars, delivered; guaranteed fancy, 6¼c. prime, 5⅝c.; special, 5½c. and No. 1, 5¼c., same basis. Export interest was reported slow. Guaranteed fancy was quoted at 6½c. per pound, bulk, f.o.b. and 7½c., drums, f.a.s.

Fish Oils

Cod—Offers for shipments from Newfoundland continued light as last season's production has been practically cleaned up. Fishing has started, but oil production has not begun. Market was steady ranging from 7¼c. to 7⅜c. per pound, bulk, Gloucester, Mass.

Menhaden—Trading in crude menhaden oil was reported slow. Tankcars were held at 6¼c. per pound, f.o.b. works, prompt and later delivery. Fishing in the Gulf continued good, while the catch was reported light on the Atlantic coast.

Refined light pressed oil was quiet and unchanged at 9½c. per pound, tankcars, New York basis.

Production of fish oil in the United States was up 14 percent in 1959, largely because of a larger menhaden catch according to Foreign Agricultural Service. Menhaden provide about 80 percent of the total U. S. fish oil output. U. S. production in the early months of 1960 was running behind the corresponding period in 1959, but the heavy months of production are May through October. In 1959 the United States was again the world's leading fish oil producer; for the second successive year it displaced Norway, the leader from 1951 through 1957.

Fish oil production in the major exporting countries was up sharply in 1959 despite a relatively small outturn in Norway, the world's leading producer from 1951 through 1957. Production in 1960 may be down slightly from the high level of 1959 because of a poor herring catch by Norway earlier this year. Also, low world prices for fish meal—the primary product of fish reduction—have tended to discourage extensive operations in some countries.

World exports of fish oils (including fish liver oils) reached a record 265,000 short tons in 1959, reflecting resurging U. S. exports, record shipments from West Germany, Denmark, and the Union of South Africa, and the emergence of Peru as an important world exporter. Exports in 1959 were one-third above 1958 and were almost double the 1935-39 average.

Whale—The International Whaling Commission, London, has revealed the limit to catches of blue whales in the Antarctic, previously agreed among members of the commission, is to be suspended for the 1960-61 and 1961-62 seasons, following the withdrawal of Norway and the Netherlands from the convention under which the limits were fixed.

The commission noted that negotiations are continuing, to bring Norway and the Netherlands back into commission membership, and in the event such negotiations are successful the whale catch limit suspended recently will be reimposed.

It was reported that last season 15,433 blue whale units were caught by 20 expeditions to the Antarctic, or 132 more than in 1958-59, and compared with a limit set at the outset of the season of 15,000 units. The season lasted 99 days as against 69 previously, and this was seen as underlining growing fears of overcatching of blue whales in the Antarctic.

Cake and Meal

Cottonseed—Supplies of old crop meal are limited and trading continued restricted to small lots. Meal, 41 percent was nominal at $58 to $58.50 per ton, sacked, Memphis and $68 to $69 in the Georgia and South Carolina area.

Linseed Meal—Interest developed in new-crop delivery of linseed meal and moderate quantities were booked at $51 to $51.50 for September-December. Prices for prompt delivery declined 50c. a ton in the face of short production. Exporters also purchased new-crop supplies. Shipping directions were good, schedules tightly filled at plants in production. Extracted meal, 34 percent was quoted at $52.50 a ton, bulk, in carlots, f.o.b., Minneapolis, for prompt delivery. Old process expeller meal declined 50c. to $60, July-September.

Soybean Meal—Demand was limited in this market but a tone of stability developed at the lower levels. Prices declined $1 for unrestricted billing and in most markets. Supplies were short in Minnesota and prices firm. Southern market displayed firmer trend on improved feed business. Meal, 44 percent was held at $50 a ton, unrestricted, bulk, Decatur, for prompt shipment.

Waxes, Vegetable

Carnauba wax market was firmer, reflecting the strong Brazilian market as a result of the price support program which became effective a week ago. The government has begun to make purchases of fatty grades at floor prices and offers for shipment were light and closely held. This stiffened fatty grades in the local market and quotations were advanced 2c. per pound. No 3 Ceara crude was higher at 73c. to 74c. per pound, as to quantity on the spot and Parnahyba at 74c. to 76c., same basis. Yellows were unchanged, with No. 1 Ceara available at $1.02 to $1.03 per pound, spot and Parnahyba at 1c. more. Chalky also was firmer and held at 73c. to 74c. per pound, spot, as to quantity. Consuming demand for carnauba grades lacked snap and was confined to actual needs.

Moderate replacements of candelilla wax caused sellers to further reduce prices to regular customers. Crude was lowered to 55c. to 58c. per pound, spot, depending upon buyer and seller and quantity, and refined pure to 60c. to 63c., same basis. Buying interest continued quite active, with holders of stocks not pressing for business.

Bids Wanted

Ammonium Nitrate, 200 metric tons, bids invited until August 6 by Armament Department, Imperial Iranian Army, (DT/Section), Jale Ave., Tehran. Copies of bids are available from the Trade Development Division, Bureau of Foreign Commerce, US Department of Commerce, Washington 25, DC.

Insecticides, DDT powder, 2,516 pounds, containing 5 percent DDT, 10 percent toxaphene and 40 percent sulfur. HCH powder, 238.5 tons, containing 3 percent gamma isomers. Endrine in water, 25,340 liters (about 5,700 gals.) comprising 19.5 percent endrine by weight and 19.2 percent by volume (approx. 1.6 pounds endrine per gallon). Endrin solution in diesel oil, 163,500 liters (about 43,200 gallons) 1 to 3 ratio. Endrin solution in diesel oil, 363,300 liters (about 93,000 gallons) 1 to 2 ratio. Bids should be sent by registered mail to: President of Cogerco, B.P. 3058, Leopoldville Kalina before July 20. Bids must be by lot showing unit as well as total price CIF Matachi. Shipments must arrive at destination by January 15, 1961.

Sodium Sulfate, thiosulfate and carbonate, 5 items, Bid IFB 19, July 26. **Paint,** 7 items, Bid IFB 22, July 27. Business Service Center, General Service Administration, Bldg. 41, Denver Federal Center, Denver 25, Colo.

Trichloroethane, 6,800 gals., Technical, Spec. Fed. 9-T-620A, July 26. General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Miscellaneous, Alcohol, USP, 5 gal., 3,700 drums; Alcohol, USP, 54 gal. (Ethanol Ethyl Alcohol), 360 drums; **Isopropyl Alcohol,** NF, 5 gal., 2,450 drums. Bid IFB M5-11-61, July 26. **Acetic Acid Glacial,** USP 1 pint, 2,808 bots.; **Acetic Acid Glacial,** USP, 5 pint, 648 bots.; **Acetone,** ACS, 1 pint, 10,536 bots.; **Cetyl Alcohol,** NF, 1 lb., 288 bots.; **Ammonia Spirit Aromatic,** 1 gal., 36 bots; **Barium Sulfate,** USP, 10 lb., 7,152 cns.; **Petroleum Ether** (ligroine), ACS, 1 pint, 720 bots.; **Boric Acid,** USP, Powder, 5 lbs., 366 bots. Bid IFB M5-5-61, July 26. **Ascorbic Acid Tablets,** 0.10 gm. (1½ gm.) 100s, USP (Vitamin C), 7,660 bots.; **Ascorbic Acid Tablets,** USP, 250 mg. (gr.) 1,000s (Vitamin C), 108 bots.; **Belladonna Tincture,** 1 pint, USP, 1,056 bots.; **Benzoin Compound,** fluid, 1 pint, 1,248 bots.; **Calcium Gluconate Injection,** 1 gm. (15 gr.), 10 cc. 960 bxs.; **Calcium Lactate Tablets,** NF, 0.3 gm., 1,140 bots.; **Capsule Gelatin Pharmaceutical,** No. 2, 1,728 bxs., No. 3, 864 boxes. Bid IFB M5-6-61, July 26. Marketing Division for Drugs and Chemicals, VA Supply Depot, Somerville, N. J.

Jobs & People

Allied Chemical Corporation, New York—**George H. Hotte,** director of the marketing department, has received a degree of honorary doctor of textile science from the New Bedford (Mass.) Institute of Technology.

American Cyanamid Company, New York—**R. W. Lull** has been appointed manager of technical service and **F. W. Miner** manager of sales development in the paper chemicals department.

American Viscose Corporation, Philadelphia—**Bartholomew J. Vattieri** and **Richard D. Trainer, jr.,** have been added to the Philadelphia district sales force.

Ansul Chemical Company, Marinette, Wis.—**Robert E. Sexmith** has been named sales manager of the company's fire equipment division and **Jay H. Jarrett** becomes sales manager of the refrigeration products division.

Armour Agricultural Chemical Company, Atlanta, Ga.—**George C. Smith** has been named manager of the Montgomery, Ala., division, to succeed **R. A. Ellington,** who recently retired after thirty-seven years of service.

AviSun Corporation, Philadelphia —**Arthur C. Reedie, jr.,** has joined the company as staff assistant of industrial relations.

Canadian Chemical Company, Ltd., Montreal, Quebec, Canada—**John Zabinski,** manager of the central district, has been appointed product manager of chemicals. **O. Gilbert Ball,** who has been managing the western district, will move from Vancouver to Toronto to head up the central district.

Colgate-Palmolive Company, New York—**Stewart Aledort** has been appointed to the corporate research and development department to work in basic chemical research.

Colgate Pharmaceutical Laboratories, a division of Colgate-Palmolive Company, New York—**Philip Oulette** has been added to the New Brunswick, N. J., laboratories as a product development chemist.

Commercial Solvents Corporation, New York—**Dr. Donald R. Dowden** has joined the market development department as an animal nutrition specialist.

Dartell Laboratories, Inc., Los Angeles—**H. Stanley Jones** has been appointed controller to replace **Mark Ackermann,** who is opening his own office.

Delhi-Taylor Corporation, New York—**Adolph F. Schlachter** has joined the chemical sales staff in New York to serve customers in the eastern district.

Diamond Alkali Company, Cleveland, Ohio—**Robert G. Dow** has been appointed a field salesman with the Chicago branch sales office, succeeding **H. T. Woollacott,** who died recently after forty years with the company.

Eastman Chemical Products, Inc., New York, a division of Eastman Kodak Company—**Nelce C. Taylor,** formerly Pacific Coast service engineer with headquarters in Los Angeles, will exchange assignments with **Floyd Patrick,** service engineer in the Chicago district office.

Geigy Industrial Chemicals, a division of Geigy Chemical Corporation, Ardsley, N. Y.—**John J. Paredes** has been named midwest regional sales manager with headquarters in Chicago. **Richard J. Michelini** has joined the sales staff at Chicago.

Eli Lilly & Co., Indianapolis, Ind. —**C. Edward Hixon,** who has been superintendent of Eli Lilly International Corporation's affiliate in Columbia for the past two years, has returned to the parent company's home office.

Monsanto Chemical Company, St. Louis, Mo.—**William H. Hunt** has been named toxicologist at the company's St. Louis plant.

National Starch & Chemical Company (Canada), Ltd., an affiliate of National Starch & Chemical Corporation, New York—**John L. Burton** has been advanced to the post of supervisor of technical service in Toronto.

Norwich Pharmacal Company, Norwich, N. Y.—**Dr. Clarence W. Trueheart** has joined the company's scientific information division.

Olin Mathieson Chemical Corporation, New York—**Milton O. Schur** has been named vice-president for research in the packaging division with headquarters at Pisgah Forest, N. C. **Dr. David C. Lea** will succeed him as director of research and development for the division's Ecusta paper operation at Pisgah.

Richardson Company, Melrose Park, Ill.—**Ramon A. Mulholland** has joined the company as manager of the commercial development department. The post carries responsibility for all market research and development activities not related to present product lines plus developing information to permit expansion of the company through diversification.

Sandoz, Inc., New York—**Jack H. Emerson** has been named a sales representative in the dyestuff and chemical divisions with headquarters at the company's Charlotte, N. C., district office.

Schieffelin & Co., New York—**Isadore Farber** has been named a pharmacologist in the scientific laboratories section of the pharmaceutical laboratories division.

Scientific Design Company, New York—**Dr. Rex E. Lidov** will fill the newly-created post of director of research planning. **Dr. Joseph L. Russell** has been named director of research.

Shell Chemical Company, New York—**Martin L. Courter** will leave Shell Development Corporation about August 1 to take up new duties as process development manager in the industrial chemicals division of Shell Chemical Company.

Smith, Kline & French Laboratories, Philadelphia—**Alfred D'Angelo,** plant manager at SK&F's Philadelphia facilities, has been named a member of the board of lay trustees of St. Joseph's College in that city.

Squibb Institute for Medical Research, a division of Olin Mathieson Chemical Corporation, New York—**Dr. Leo Brannick** has joined the staff of the pharmacology section.

A. E. Staley Manufacturing Company, Decatur, Ill.—**Ellsworth E. Kimmel** has been named director of the industrial market development department, and **Constantine J. Ballos** to head the paper industry section of that department.

Summers Fertilizer Company, Baltimore, Md.—**Brig. Gen. Clayton O. Totman,** recently retired from the US Marine Corps, has joined the company as assistant vice-president.

Union Carbide Corporation, New York—**J. Harris Ward** and **Paul A. Gorman** have been elected directors.

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Coatings Materials

The usual summer decline in manufacturing operations throughout the nation is reflected in the coatings market for the week. Mill closings for vacations brought activity in the shellac, casein and resin markets to a snail's pace. Sources throughout the trade did not seem disturbed by the generally featureless and lackluster conditions. Most of the trade feel that business is at least normal for this time of the year and in some cases better.

Particularly pleased are the plasticizer producers. Demand for the phthalate esters is reported to have been blunted by the reduction in market activity. Just a few weeks ago producers were allocating all of their business. The latest report indicates that the industry is presently allocating about 60 percent of their business. This 40 percent margin gives producers room to maneuver for new business or build up the reported low level of stocks. Supplies of naphthalene still remain the very weak link in the chain of materials that the phthalate producers depend on in their operation. With cokeoven production reduced, plasticizer producers can only cross their fingers and hope.

Running counter to the usual practice in the paint market of making price changes at the beginning of the year, is the announcement by two major producers advancing the price of mineral orange, litharge and the lead oxides. Prices have been raised ½ cent per pound across the board and became effective on July 12. No reason was given for the advance but observers noted that there was no corresponding advance in the listings for lead metal.

Importers of the congo copal gums continue to maintain that the supplies of the gum at warehouses is sufficient to carry them through the crisis in the Congo. Shipments to this country have been cut off. But production in the Congo is going on, the only problem is transportation. Once that problem is solved, sources feel, the situation will return to normal.

Very little buying is reported for the Argentine casein market. Listings for all sources of casein held unchanged. A few offers of French casein were reported to have moved one small lot at 19¾ cents per pound, c.i.f., New ork.

Price Trends

Advanced

Lead oxides, ½c. per lb.
Litharge, ½c. per lb.
Mineral orange, ½c. per lb.

Reduced

None

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	July 17, 1959
103.16	103.15	103.03	103.05

For Current Prices See Page 11

Prime Pigments

Aluminum Paste and Powder—A few months ago there were a few reports concerning a possible price increase on aluminum metal and its products sometime this summer. No new reports are heard from the trade and it would seem likely that the longstanding listings for aluminum paste and powder will remain in effect over the summer months. Demand at this time is called routine with supplies in a good balance.

Dry Colors—Painting activities are at their seasonally high levels thus insuring strong demand throughout the painting materials market. Dry color demand is reported to be moving with corresponding briskness. Prices are unchanged, while no problem exists in regard to supplies.

Lead Oxides—Listings for lead oxide scored gains of ½c. per pound across the board. In announcements by at least two major producers, the advance became effective July 12. No reason was given for the advance, but sources noted that there was no change in the listings for lead metal.

Litharge—Along with the price increase for lead oxides, producers advanced listings for litharge. For commercial, powdered, bbls., c.l., works, frt. equald., the price went from .1375c. per pound to .1425c. per pound. For material in less than car lots the price advanced from .1475c. per pound to .1525c. per pound. The new listing became effective on July 12.

Mineral Orange—Included in the announcement for litharge and the lead oxides, is the advance of ½c. per pound for mineral orange. For American mineral orange, in barrels, c.l., works, the price went from 16½c. per pound to 17c. per pound. For material in less than car lots, on the same basis, the price advanced from 17½c. per pound to 18c. per pound. Again, the higher price became effective on July 12.

Phthalocyanine Blue — Production of this blue pigment during April was 402,067 pounds, according to reports furnished by the US Tariff Commission. For the previous month the output of this pigment was 381,655 pounds.

Zinc Oxide — Production of lead-free and leaded zinc oxide in the US for May totaled 14,600 tons, about one percent less than April, 1960, and 11 percent below May of last year, according to the Bureau of Mines, US Department of the Interior.

Output of lead-free zinc oxide increased two percent, while the leaded variety declined 25 percent. Shipments of lead-fre zinc oxide declined less than one percent, but the leaded type increased 35 percent. Combined shipments increased 3 percent over April of this year but were one percent below shipments for May of last year.

Producers' stocks of lead-free zinc oxide increased two percent while the leaded variety decreased 15 percent when compared to the figures for April of this year.

Synthetic Resins

The following figures show sales in pounds for April with March figures included for comparison, as reported by the Tariff Commission:

Sales

	March	April
Phenolic and other tar acid resins:		
Molding resins	18,189,140	16,753,090
Laminating resins	3,929,619	3,727,147
Protective coating resins, unmodified, modified, except by rosin	2,075,352	1,889,323
Urea and melamine resins:		
Protective coating resins, straight modified	2,581,633	1,933,971
Vinyl resins:		
Total all types	98,388,996	89,243,521
Alkyd resins for protective coatings:		
Phthalic anhydride types, unmodified	10,166,732	9,224,150
Modified with tar acids, rosin, and/or other materials, except styrene	3,758,411	3,792,813
Polybasic acid types except phthalic:		
Unmodified	394,797	423,997
Modified with tar acids, rosin, and/or other materials except styrene	395,831	395,525
Rosin modifications for protective coatings:		
Rosin, rosin esters, unmodified (ester gum, esterified with glycerol	1,222,563	870,589
Esterified with other alcohols, pentaerythritol, glycols, etc.	922,465	773,003
Rosin, rosin esters, modified:		
Modifications with phenolic and other tar acid resins	2,640,619	2,353,789
Modifications with maleic and fumaric acids	2,843,573	2,244,260
All other modifications	5,203,776	4,732,772
Coumarone-indene and petroleum polymer resins	20,717,626	19,800,166
Miscellaneous synthetic plastic and resin materials, including silicone resins	22,744,297	20,874,036

Lacquer Materials

Cellulose Butyrate Acetate — Demand and listings continue unchanged in this market. Market conditions are termed routine with nothing in sight to disturb this tranquil situation.

Nitrocellulose—As above, market for this lacquer material continues along at its routine pace. Prices are reported to be firm and unchanged, supplies are well situated.

Plasticizers—Decreased demand is reported to be the basic reason for the general improvement of the situation in the phthalate esters. Trade sources report that business generally is being conducted on a 60 percent allocation basis. Plants closing for summer vacations blunted the brisk demand that has been holding producers business on 100 percent allocation basis. Nevertheless, the volume on sales of the esters are reported to be above that for the volume normal for this time of the year.

Trade sources are hopeful for the re-

mainder of the year, although much depends on the return of steel production. Naphthalene continues to be in a tight supply position. Since the supply of this crucial material is the biggest stumbling block in the way of the phthalate ester producers, much depends on the flow of cokeoven naphthalene during the last two quarters of the year.

Production of plasticizers during April was well below that for the previous month. Output of dibutyl phthalate in April was 1,028,224 pounds. For the previous month, production stood at 2,558,735 pounds. Production of dioctyl phthalate including di-n-octyl, di-isooctyl and di (2-ethylhexyl) phthalates and mixtures was 10,933,180 pounds for the month of April. Production in April for the same phthalates was 14,927,396 pounds.

Miscellaneous

Casein—Trade sources report very little buying interest as mills close for summer vacations. In the backwash of the signing of the casein import duty bill, the market turned quiet. Listings for Argentine was reported to be unchanged at 20¾c. to 21¼c. per pound. Australian for immediate delivery was also unchanged at 22½c. to 23c. per pound. Prices for November and December delivery were reported to be about 1 to 1¾c. per pound higher.

Reports are numerous in the trade that stocks of Argentine are usually low for this time of the year. One small lot of French casein has been reported to have moved in the last few weeks at 19¾c. per pound, c.i.f., New York.

Talc—Listings for this paint material is reported to be unchanged over previous months. Demand is reported to be moving briskly, supplies are said to be adequate for all needs.

Gypsum—Production of crude and calcined gypsum during the first quarter of this year is reported by the Bureau of Mines to have been 8 percent below the tonnage reported for the corresponding period last year.

Production figures of crude mined gypsum over the first quarters of the period 1956-60 reveal a gradual reduction of output. During the first quarter of 1956 production was 2,588,563 short tons. In the following year during the same period, production was reported at 1,991,602 short tons. Production during the first quarter of 1958 remained about the same and in the first quarter of 1959 regained some of its previous losses when production hit 2,341,477 short tons. During the first quarter of this year, production dropped to 2,145,269 short tons.

Natural Resins

Gums—The situation in the Congo has not resulted in a cases of the jitters among importers of the congo Copals. Contacted by OPD, sources remain optimistic about the future. The feeling is that the political situation will quiet down, returning the flow of copal gums to this country to its normal rate. Stocks at warehouses are reported to be adequate but delays in transportation, should they become extended, might result in some difficulties here. The present situation is extremely fluid with some producers reporting that they have lost cable contact with sources in the Congo.

The consensus is that the affects of independence will be short-lived. The copal gum production in the Congo is helped by the fact that native workers need little special training to produce the gum and by incentive provided by the desperate need for foreign exchange to bolster its economy.

Prices are unchanged for all the gums this week and supplies, including the Congo copals, are reported to be available for all needs.

Shellac — Prices continue to hold at their long standing levels. Demand is reported to be off from its recent briskness, but normal for the summer months when the annual closings of mills for vacations brings activity in many markets back to routine levels. Supplies both here and abroad are termed adequate while current listings are felt to remain in force over the next few months.

Naval Stores

Turpentine — The US Department of Agriculture has announced the Commodity Credit Corporation stocks of gum turpentine have been placed on sale for export and for unrestricted use as of July 11.

These stocks total 4,415 barrels of 50 gallons each and are stored at six warehouse locations. They will be offered for export sale directly by CCC on a competitive bid basis. Also, they will be made available for sale for unrestricted use at announced prices through the American Turpentine Farmers Association Cooperative.

All sales will be made under the terms and conditions of Announcement TB-21-60 and supplements thereto which will be mailed to the trade.

The quantity of the turpentine offered for sale represents the only naval stores stocks held by the CCC. All offers are to be made by telegram, the announcement instructs.

Offers at announced prices for unrestricted use are to be directed to the American Turpentine Farmers Association, Valdosta, Ga.

Competitive bids for export are to be addressed to Milton S. Briggs, Chief, Naval Stores Branch, Tobacco Division, Commodity Stabilization Service, US Department of Agriculture, Washington 25, DC. Competitive bids must be received before noon (EST) every Tuesday. Successful bidders will be notified by telegram filed not later than 6 pm (EST) on each following Thursday.

CCC reserves the right to reject any or all bids. Information as to quantities and prices of bids accepted will be released through the Naval Stores market News Service, Savannah, Ga.

Pine Gum—The average price paid per standard barrel of commercial crude gum for the week ended July 2 was $38.30. The previous week's price per standard barrel was $38.10. A year ago for the same week the price was $27.60. No loan.

Volume of gum deliveries for the week ended July 8 was 20,900 barrels. For the previous week, the volume of gum deliveries was 17,322 barrels. A year ago, the volume of gum deliveries was 17,815 barrels.

The average content per barrel of turpentine was 10.85 gallons. Rosin content per barrels was 299.1 pounds. Gum grading was: 41 WW; 27 WG; 15 N; and 17 M.

The Naval Stores Market News Service reported last week that the first of the bids received by the CCC were rejected. The Service said that bids were turned down on 38,275 gallons of gum turpentine. The bids were on turpentine for export. The actual bid was not disclosed.

Reported trading for July 14 was confined to one truckload of molten rosin. Sales, f.o.b. plants maintained the earlier price of $12 for K or better. No turpentine sales were reported.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. July 8	Mon. July 11	Tues. July 12	Wed. July 13	Thurs. July 14
Drums—					
M	$13.25	...	...	$13.25	...
N	13.10	...	...	...	...
WG	...	$13.44‡	...	13.57	...
WW	13.60	13.65	...	13.74	...
Bags—					
Tankcars (for week ended July 15)—					
K or better, $12					
	Sales, USDA				
	4‡	578*	...	1,309*	...

New York
(Per 100 lbs., c.l., Friday)
WW, $14.75; WG, $14.60; N, $14.50; K-M, $14.40

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	...	...	...	.476	...	...
Sales	...	...	...	16,000¶	...	...

* Drums equivalent. ‡ Carlots. ¶ Gallons. § Average price.

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- Prompt deliveries through nationwide warehouses
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Get it Straight . . . . . .
. . . . . in OPD

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BRILL FOR VALUES

CENTRIFUGES

2—Sharples C-27 Super-D-Hydrator, 316 S.S. Monel.
1—Bird 18"x28", Solid Bowl, Continuous, 316 S.S.
1—Bird 36"x50", Solid Bowl, Continuous, 347 S.S.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—Pfaudler, Jacketed, Agitated Reactor with Condenser and Receiver.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—4000 gal. 316 S.S. clad agitated Reactor with coils.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
1—750 gal. nickel clad Mixing Tank, 125# nickel coils.
1—500 gallon Mixer Tank with nickel coils.
1—4000 gal. Haveg Vert. Tank 8'x12'.
3—7500 gal. Rubber Lined Tanks 10'x13'.
1—1500 gal. Stainless Pressure Tank, 5'x10', 90#.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
6—Stainless Heat Exchangers; 1220, 786, 536, 370, 315, 250 sq. ft.
1—Falls Industries 100 sq. ft. Karbate Condensor.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 3'x6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Oliver 3' x 2' 347 S.S. Rotary Vacuum Filter.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 20—60"x80" shelves.
1—Devine Vacuum Shelf with 19—59"x78" shelves.
1—Devine Vacuum Shelf with 10—40"x43" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
2—Louisville Rotary Steam Tube 6'x25', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Traylor 30"x18' Stainless Steel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 10' wide Apron Conveyor Dryer 48' long.

MIXER

1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
1—Baker Perkins 9 gal. jacketed 304 S.S. double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—500# Abbe 304 S.S. Powder Mixer.
1—3' dia. Simpson Intensive Mixer.
1—Stokes 21K, 304 S.S. Granulating Mixer 82 gals.

MISCELLANEOUS

1—Farrel Birmingham, Size B Banbury Mixer, 304 S.S.
1—Farrel Birmingham, 8" x 16", 2 Roll Chrome Plated Mill.
2—ISH, ISI Mikro, Pulverizers, 3 HP.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10' dia. Single with Separator.
1—#5 Mikro Atomizer with motor and cyclone.
2—Bantam Mikro Pulverizers, S.S.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
8—Stokes: DD2, DDS2, T, "R", and "F" Tablet Presses.
4—Nash Vacuum Pumps: H6, TS7, #2.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps 1½" to 6".

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35-61 JABEZ ST., NEWARK 5, N.J. Tel.: MArket 3-7420

Trade Name Chemicals

—Continued from page 47

the brightness of the cloth is much improved. Through emitting this extra light in the blue part of the visible spectrum, the cloth then would look both brighter and whiter, and the natural yellowish cast of the cloth would thus be compensated for without the amount of bluing that had previously been necessary.

Fiber chemical corporation markets a line of whiteners and brighteners ranging all the way from materials such as beta methyl umbelliferone which is non-substantive and hence removed by washing, to their complete line of **Neowhites.** Fiber Chemical has a **Neowhite** to fit almost any operating procedure in virtually every industry wherein optical brighteners are usable, textile, paper, plastic, soap and detergents etc.

Optical brighteners are functionally an important development, but they have their limitations, and these should be recognized so that consuming industries do not expect too much of them.

An optical brightener is intended to improve the whiteness of a slightly yellowish material. They are not intended to overcome strong yellow casts, or improve discoloration from other tints. They will not correct overblued laundry or get rid of grayishness.

They are not chemical bleaching agents, so that they do not level out non-uniform appearances or remove spots. They are not pigments and have no hiding power. They are colorless dyes and all the provisions necessary for uniform results have to be observed, such as uniform pretreatment of the material, uniform distribution of the whitener, retarded absorption by the fiber to obtain leveling, increased exhaustion by addition of salts, etc. Lastly, they are effective only in daylight because they function on the ultraviolet light absorbed from daylight.

Oxidizing Agents

The Lucidol Division of Wallace and Tiernan, Inc., markets a mild organic oxidizing agent designated as **Lucidol** which is a solid benzoyl peroxide with a minimum of 6.3 percent oxygen. They also market **Luperco ATC** which is a thick paste of benzoyl peroxide compounded with tricresyl phosphate, and having a minimum of 3.3 percent oxygen available.

Benzoyl peroxide of the **Lucidol** type finds use as a curing catalyst for the polymerization of numerous monomers initiated by free radicals. Its synthetic resin uses cover a broad range, because it acts to bring about polymerization of vinyl acetate, vinyl chloride, vinylidene chloride, methyl methacrylate, styrene, ethylene, unsaturated polyesters, and many others.

It works in polymerization reactions conducted in bulk, in solution, in suspension, or in emulsion systems. Amounts needed vary as to product and operating conditions from 0.1 percent to 2.0 percent. It has been used in the preparation of styrenated alkyds and in the cross linking of silicones.

Its oxidative properties are useful in bleaching oils, fats, and waxes, or products like lecithin, without the necessity of filtration.

It is a burn-out agent for acetate yarns, is used in organic syntheses, and in small concentrations finds application in cosmetic and pharmaceutical preparations. It finds application for the selective halogenation of numerous unsaturated compounds such as olefinic double bonds.

The **Luperco ATC** is used for most of the same type of applications as straight benzoyl peroxide, except those wherein the presence of tricresyl phosphate would be objectionable. The physical form of paste makes this product easier to handle, and the dilution of benzoyl peroxide with tricresyl phosphate greatly reduces the fire hazard, both because of physical dilution and also because of the retardant characteristics of tricresyl phosphate.

Olin Mathieson Chemical Corporation has an efficient slime control agent designated as **C-2** for the pulp and paper industry. This oxidizer is a sodium chlorite product for acidic water white systems. Its performance characteristics are due to its ability to slowly release chlorine dioxide which is a recognized powerful bactericide. It does not cause foaming at the head box or darkening of the pulp, at the recommended use level there has been no reports of differential effects on dyes.

Surfactants

The **Ultrawets**, made and marketed by the Atlantic Refining Company, are alkyl-aryl sulfonate types of anionic surface active agents. They have excellent wetting and sudsing properties, and their advantages in this regard shows up particularly well in hard water, according to company claims. The **Ultrawets** are available in slurry, liquid, flake, and bead forms.

As flakes and beads, they are the metal salts of alkyl-aryl sulfonic acids, and are used primarily in dry mixed detergent compounds. As liquids, they are used in stock solutions for industrial processing and in compounding liquid products, as well as in preparing liquids or slurries for drum or spray drying.

Almost any **Ultrawet** has good tolerance for electrolytes, acid or alkali media, and such things as calcium ions. However, like all anionics, they cannot be blended with cationic quaternary ammonium type detergents because they will react chemically with them. There is an **Ultrawet** or combination of **Ultrawets** available to make just about any kind of end-use surfactant that might be required by home or industry, and treatable with anionics.

A particularly versatile **Ultrawet** is **60L** which is an all organic alkyl-aryl sulfonate marketed as 60 percent active, 40 percent water, liquid surfactant. It finds use in liquid detergents, wet textile processing, shampoos, car wash, and household detergent formulations.

Tergitol surfactants are made and marketed by Union Carbide Chemicals Company. Most of the surfactants in the Tergitol line are non-ionics of the glycol ether type. Some are anionics. Several of the non-ionics are nonyl phenyl polyethylene glycol ether types, each one containing a different mole ratio of ethylene oxide to provide perdetermined water solubility and cloud point.

For example, **Tergitol NP-14** contains 4 moles of ethylene oxide, and is completely soluble in aliphatic solvents and hydrocarbons. This makes it useful as a component of dry cleaning detergents and industrial cleansers, and in the preparation of oil in water emulsions. In **Tergitol NP-27** the ethylene oxide content is stepped up to 7 moles, which gives it a limited water solubility making it useful as a dispersant and emulsifier in agricultural toxicant formulations and as a builder for soaps and anionic detergents.

Tergitol TP-9 has 9 moles of ethylene oxide which steps up the water solubility to a point where it is an excellent detergent and wetting agent in aqueous systems (as contrasted to oil systems) which operate at room temperature to warm temperature ranges. **Tergitol NPX** has 10.5 moles of ethylene oxide, throwing it into the all purpose detergent, wetting agent, and dispersing agent class.

Tergitol NP-35 is made with 15 moles of ethylene oxide and **Tergitol NP-40** contains 20 moles of ethylene oxide, which makes them highly water soluble, allowing their use as detergents and wetting agents in aqueous systems operating at elevated temperatures or in the presence of high concentrations of electrolytes, where less soluble products would be ineffective. Of course, the **Tergitols** described above may be blended to produce just about any specific solubility that any given operation might require.

Trace Minerals

—Continued from page 7

pounds, which have specified limits, the following substances are "generally regarded as safe" (GRAS) by FDA when added at levels consistent with good feeding practice:

Cobalt acetate, cobalt carbonate, cobalt chloride, cobalt oxide and cobalt sulfate.

Copper carbonate, copper chloride, copper gluconate, copper hydroxide, copper oxide and copper sulfate.

Calcium iodate, calcium iodobehenate, cuprous iodide, diiodosalicylic acid, ethylene diamine dihydriodide, potassium iodate, potassium iodide, sodium iodide and thymol iodide.

Ferric ammonium citrate, ferric chloride, ferric oxide, ferric phosphate, ferric pyrophosphate, ferrous carbonate, ferrous gluconate, ferrous sulfate and reduced iron.

Manganese acetate, manganese carbonate, manganese chloride, manganese dioxide, manganese gluconate, manganese oxide, manganese sulfate and manganese phosphate (dibasic).

Zinc acetate, zinc carbonate, zinc chloride, zinc oxide and zinc sulfate.

Exceptions to general recognition of safety:

Cobalt added to the rations of nonruminant species in excess of 0.0001 percent of the total daily feed intake of the animal.

Copper added to the rations of sheep in excess of 0.0010 percent of the total daily feed intake of the animal.

EQUIPONOMICS

BIRD Continuous Centrifuges 18" x 28" 316 S.S. (1952) 15 H.P. Washing

COLUMN S.S. 32" D x 25' high, 28 plates.
OLIVER VACUUM FILTER—S.S. 316, 3'x6'
KARBATE HEAT EXCHANGER—40 sq. ft.
FITZ MILL Model D, S.S., 7½ H.P.
HEAT EXCHANGER—S.S. 500 sq. ft.
DEVINE VAC. PUMPS—115 cfm. (2).
TOLHURST—30" S.S. Centrifuge, 3 H.P.
EVAPORATOR—Single effect, S.S. VRC, 90 sq. ft., Blaw Knox 1953. Complete.

PROCESS PLANTS SERVICE, INC.
237 Central Ave., Clark, N.J. Tel. FUlton 1-1103-4

MACHINERY ANYONE?

1—#3 Banbury Mixer with 75 h.p. motor.
1—Lydon 3 truck Atmospheric Dryer.
1—Bird 40" rubber covered suspended type Centrifugal, motor driven.
3—300 gal. Aluminum jacketed Kettles.
1—23 cu. ft. Ribbon Blender, Stainless.
1—Duriron 2" Cent. Pump, 5 h.p. mtr.
4—Jeffrey, Williams & Sturtevant Hammer Mills, all motor driven.
1—Turbo Agitator, 100 r.p.m. 10 h.p. mtr.
1—Premier 8" Colloid Mill, 30 h.p. mtr.

WHAT DO YOU HAVE FOR SALE?

BILL WOLF, Inc.
2708 CAROL ROAD UNION, N.J.
MUrdock 6-8883

IMMEDIATE DELIVERY

AARON AREco EQUIPMENT CO.

CENTRIFUGAL — Tolhurst 20" type 316 S/S.
FILLERS — 6 pocket S.S juice filler FMC.
FILTERS — Sparkler Model 18 S 23; Sparkler Model 33-9; Sparkler Model 50P.
KETTLES — 40 gal. and 60 gal. new Groen; 75 gal. Lee pressure cooker.
MILLS — Prater hammer 125 HP; Sprout Waldron rotary cutter; Cumberland stair-step plastic grinder 25 HP.
MIXERS — Baker Perkins 7 UNE; Baker Perkins 17 DAM, 17 VIM.
SIFTERS — 40 x 120 Rotex; Selectro 3 deck 18 x 48.
TANKS — 2300 to 6500 S.S lined. Price reduced for quick sale.

SEND US YOUR LIST OF IDLE SURPLUS

AARON EQUIPMENT CO. GLadstone 1-1500 ALL PHONES
9370 Byron Street, Schiller Park, Illinois

Get it First . . . . .

Get it All . . . . .

Get it Straight . . . . .

. . . . . in **OPD**

BUY ON TERMS!

SPECIALS FROM OUR STOCK OF OVER 10,000

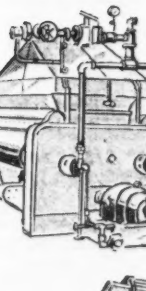
3—A T & M 40" S.S. Perf. Basket Centrifuges, Mtr., Brake & Plow
3—Sperry 36" x 36" Filters, 40 pits. 40 frms. Hydr. Closing
1—New Pettibone Bulldog Hammermill. Size 36" x 30"
2—French Expellors, type 2-S. 30 HP with tempering bins
3—Downington 52 sq. ft. Shell & Tube Heat Exchangers 316 S S
1—Buflovak Model J Dbl. Door Vac. Tray Dryer. 20 shelves
2—Sweetland #2 Filters, 9 & 18 lvs. on 4" & 2" centers
1—Allis-Chalmers 6' x 50' S.S. lined Rotary Dryer

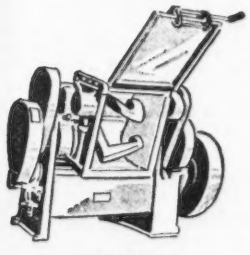
For any item you need, wire or phone collect GA 1-1380

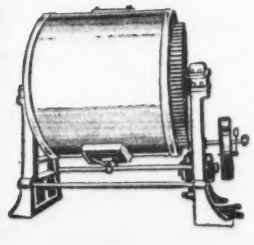
MACHINERY AND EQUIPMENT COMPANY
123 Townsend St. · San Francisco 7, California

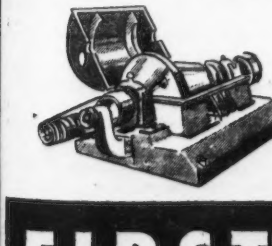
CONSERVE CAPITAL BY LEASING NEEDED PROCESSING EQUIPMENT
TRY IT BEFORE YOU BUY IT, WITH FMC's RENTAL-PURCHASE PLAN

GET FIRST'S QUOTATION FIRST









Unused Farrell Birmingham 2 Roll Mills 14" x 30"; Top Cap; each with Uni Drive. Others.

Extruders by Royle, NRM, Allen; all sizes.

Baker Perkins Heavy Duty Double Arm Jacketed Mixers; all sizes up to 300 gal.

Devine Vacuum Chamber Dryers from Lab. Size to Double Door 20 Shelf No. 36.

Double Drum Dryers all size to 42" x 120".

Bartlett & Snow Jacketed Batch Mixer 49 cu. ft. 6' x 21"; Scraper Agit.

Pfaudler Evaporating Pans in Stainless or Glass Lined; several sizes up to 6' diameter.

2 Double Chamber Stokes Impregnators; #5648.

2 Horizontal Type "C" Versators; 316 Stainless. Jacketed Steel Ball Mills; up to 54" x 42".

International Porcelain Lined Pebble Mills, 8' x 8' motorized with 50 HP Gear Motors.

Raymond Imp Mills; most models in stock.

Jackson & Church Vertical Autoclave; 41" x 54"; Jacketed; 300 gal.; quick opening.

BRAND NEW FALCON RIBBON BLENDERS . . . in Mild or Stainless Steel; all sizes stocked.

Shriver, Sperry Filter Presses up to 54".

Condensers and Heat Exchangers absolutely the BIGGEST STOCK; many in STAINLESS.

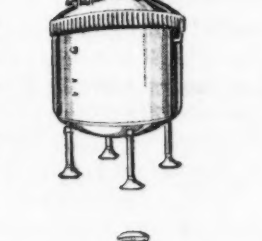
Stainless Steel Columns and Towers; many types.

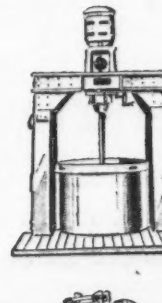
Tablet Presses by Stokes, Colton, Kux; many Models in Rotary and Single Punch; all sizes.

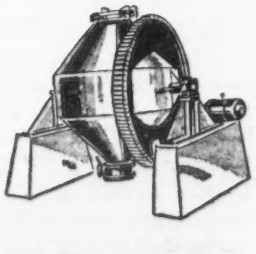
Stainless Steel Kettles and Reactors; many with agitators; Jacketed and Unjacketed.

Send for "FIRST FACTS"
New Summer Edition

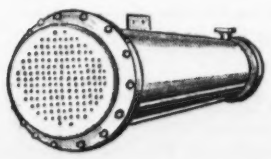
MONEL - NICKEL - INCONEL
STAINLESS - NON CORROSIVE

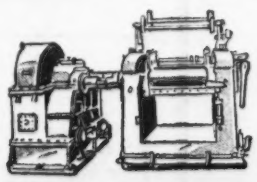


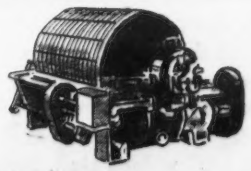




Stainless Crystalizer or Pan Dryer 250 Gal. 85" x 24", Jktd. Agitated.
Zaremba Dbl. Effect INCONEL Evaporator.
Bowen Stainless Steel Spray Dryer.
Louisville MONEL Rotary Steam Tube Dryer; 54" x 35'.
Struthers Wells STAINLESS Drum Dryers; 5' x 4' and 5' x 10'. Nickel Plated Dri Drums 4' x 4'.
2 MONEL Reactors, 2800 Gal. with Turbine Agts. Jktd. 175# ASME.
Struthers Wells Type 316 S/S 2000 Gal. Jktd. Agtd. Reactors. NICKEL Clad Reactor; 7' x 11'6".
Lancaster STAINLESS Lined Rot. Reactor; Jktd. 50" x 17'4". STAINLESS Vac. Still 755 Gal.
14 STAINLESS Pressure Tanks 700 Gal.
2 Stainless Lined 11,000 Gal. Pressure Tanks; 10' x 18'7".
STAINLESS Dbl. Arm Vac. Mixer; 150 Gal.
2 Lehmann Amalgamators; S/S Lined; 32" x 44".
Patterson-Kelley STAINLESS Twin Shell Blenders; 30-150 cu. ft.
Oliver Dorrco NICKEL Rot. Vac. Filter; 6' x 3'.
Oliver Precoat Pressure Filter STAINLESS STEEL 5'3" x 8'. FEINC S.S. Rot. Vac. Filter 6' x 6'.
Oliver Precoat Pressure Filter MONEL 3' x 2'.
Enzinger STAINLESS Pressure Filter; 24 sq. ft.
Nutsche Type STAINLESS Filter 72" x 24".
Sperry NICKEL and NI-RESIST Filter Presses.
Sparkler STAINLESS Filter; 560 sq. ft.
BIRD 48" Suspended Centrifuge Plow Discharge; 30 HP. 2 Speed Motor.
STAINLESS CENTRIFUGES from 12" to 60".
2 Bird MONEL Screen Type 24" Centrifuges.
Tolhurst Susp. 40" MONEL Centrifuge.
2 Sharples MONEL Super Centr. M4P.
Mikro STAINLESS Pulverizers No. 2.
Fitzpatrick S/S Comminutators Model D 7½ HP.







FIRST MACHINERY CORPORATION

209-289 TENTH STREET, BROOKLYN 15, N. Y. • STerling 8-4672

SUMMER HEADLINERS

PEBBLE MILLS

1—Patterson 6' x 10', porox lined, jacketed.
2—Patterson 8' x 10', batch mills, buhrstone lined.
2—Hardinge 7' x 36" conical pebble mills, buhrstone lined.
1—Allis Chalmers 6' x 18' burhstone lined.
1—Crosley 6'8" x 7', batch mill silex stone lined.
13—Abbe Eng. 6' x 8', batch mills buhrstone lined, 30 HP.
1—Porter 6' x 5', batch mill buhrstone lined.
1—Abbe 5' x 6', batch mill buhrstone lined.
2—Patterson 4'6" x 12' contin., buhrstone lined.

DOUBLE ARM MIXERS

60—200 gal. Baker Perkins #17, sigma, blades jacket.
1—150 gal. Baker Perkins #16, sigma, jacket.
3—100 gal. Baker Perkins #15, sigma, jacket, 25 HP.
1—100 gal. Baker Perkins #15-uumm, dispersion blades, cored, 100 HP. compression cover, jacketed.
1—100 gal. J. H. Day, stainless, sigma, 10 HP.
4—75 gal. J. H. Day Imp., disp. blades.
2—50 gal. Baker Perkins, sigma, jacket.
1—20 gal. J. H. Day, #2 Cinc., sigma, jacket.

CENTRIFUGALS—FILTERS

37—Sharples #AS-16V contin. cent., inconel.
3—Sharples size #C-20 super-d-hydrators, T316 SS.
1—Tolhurst 48" dia. susp. batch centrif., T304 SS, perf., 15 HP.
6—A.T. & M. 40" dia. susp. batch centrif., T304 SS, HP.
1—40" Bird susp. basket centrifugal, steel.
1—40" Fletcher susp. basket centrifugal, steel.
1—26" Tolhurst susp. basket centrifugal, steel.
1—12" A.T. & M. susp., T304 SS perf. basket.
1—Niagara #510-28 T316 SS filter, 510 sq. ft.
1—Alco T316 SS pressure leaf filter, 110 sq. ft.
1—Niagara #53-36, T304 SS filter, 53 sq. ft.
2—Sperry P. & F. filter presses, ni-resist, 210 sq. ft.
1—Kelly #50 steel press. filter, 50 sq. ft.
2—Sweetland #7 steel press. filters, 117 sq. ft.
1—Oliver 5'3" dia. x 8' face rot. vac. filter, precoat, unused.
2—Oliver 5'3" x 3' rot. vac. filters, T316 SS, precoat, ASME.
1—American 4' dia. rotary disc filter, 3-disc.
2—Eimco 10' x 12' rot. vac. filters, rubber-covered.

DRYERS

1—Buflovak 700 sq. ft. forced circulation evaporator, single effect, T304 SS.
1—Buflovak 5' x 30' rotary vac. dryer, T316 SS, ASME.
1—Buflovak 3' x 7' rotary vac. dryer, T306 SS, ASME.
1—Buflovak vacuum shelf dryer, 227 sq. ft., lithcote lined.
2—Buflovak vac. shelf dryers; 110, 98 sq. ft.
1—Devine vac. shelf dryer, 80 sq. ft.—Unused.
2—Pilot size 4' dia. spray dryers, T304 SS, elec. heating.
1—Stokes #59A, 18" x 42" rotary vac. dryer.
1—Buflovak 42" x 120" double drum dryer, ASME, 125# wp.
1—Buflovak 42" x 90" double drum dryer, w/conveyors, etc.
1—American 36" x 84" double drum dryer, w/elevator, etc.
1—American vacuum 36" x 84" double drum dryer.
1—Buflovak 5' x 12' single drum vacuum dryer—Unused.
1—Buflovak 6" x 8" lab. double drum dryer.
1—Link-Belt #604-18 Roto-Louvre dryer, 6'4" x 18' long.
1—Link-Belt #310-20 Roto-Louvre dryer, 3'10" dia. x 20' long.
1—Allis Chalmers 7' x 50' rotary dryer, 5/8" shell.
1—Gen. Amer. 7' x 40' rotary dryer, 3/8" welded shell.
1—Standard 3' x 23' rot. dryer, 1/4" welded shell, flights.

PERRY EQUIPMENT CORP.
1407 N. SIXTH ST., PHILA. 22, PA.
Phone: POplar 3-3505

PROCESS EQUIPMENT DIVISION

3 Roll #3036 High Side Raymond Mill
Double Whizzer Separator, Exhauster.

Link Belt 502-16 Roto Louvre Dryer, Oil Fired Furnace, Disch. Hood, and Drive.

8'x60'x⅝" Rotary Kiln, welded, with reducer, motor.

1000 sq. ft. Stainless Steel Condensers with 370-¾"x14'x16 ga. 304 S.S. Tubes.

Buflovac Vacuum Shelf Dryers, 18 Shelves, Condensers, Receivers, and Vacuum Pumps.

Durco Pump—100 GPM@30' Chlorimet 3.
Durco Pump—32 GPM@52' Chlorimet 3.

6500, 3000, 1500 gal. Haveg Tanks.
50, 75, 100 gal. S.S. Tanks.

C27 & C20 Sharples Super-D-Hydrator.
Vaportite 316 Stainless XP Motors.

Filter 30"x30" P&F 36 C.I. Chambers.

30 gal. 316 S.S. Autoclave 1000 PSI Int., 319 PSI Jkt., 1½ HP Agitator.

HEAT & POWER CO. INC.
60 East 42nd St., New York 17, N.Y.
310 Thompson Bldg., Tulsa 3, Okla.

CHOICE EQUIPMENT

1—Hercules 16" x 16" Stainless Steel Filter w/24 plates & frames.
4—Hercules 8" x 8" Stainless Steel Filters w/12 plates & frames.
1—Shriver Diaphragm Pump Size 1-1½ HP XP Motor.
4—Shriver Diaphragm Pumps Size "00"-¼ HP Motors.
1—Stainless Steel 30 gal. Autoclave 1000 psi w/Jacket & Agitator w/XP Motor.
1—Cyclotherm Package Boiler 250 psi 600# hr.
4—Stainless Vacuum Receivers 50 to 100 gals.
6—Jack. Stainless Kettles 75 to 100 gals. and 200 gals. closed.
1—Horiz. Spiral Mixer 3' x 12'.
3—Spiral Blenders 800 to 2000#.
1—Stainless Spiral Blender 2000#.
1—Patterson 5' x 6' Jack. Ball Mill 25 H.P.
1—Raymond #3036—3 Roll High Side Mill.
2—Stainless Tanks 500 & 600 gals.
1—Stokes Drying Cab. #38—16 Shelves.

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We Buy Single Items to Complete Plants
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THE MACHINERY & EQUIPMENT CO.
91-93 New Jersey R.R. Ave., Newark 5, N. J.
Market 2-3103

SPECIAL
BUFFALO 32"x90" DOUBLE DRUM DRYER

CENTRIFUGALS—12", 30" 40" & 48".
CENTRIFUGES—Sharples #5 & 6 S.S.
DRYERS—Hersey 5' x 26' Rotary Stainless
Buffalo 32" x 90" Double Drum Dryer
Buffalo Vac. Drum Dryer 24" x 20".
Despatch Ovens Elec Heated
Devine 8 shelf Vac. Dryer 40" x 42".
Hope S.S. Can Filler pints to gals.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—Vallez type 49. with 41 Stainless covered leaves.
#2 Sweetland 12 Stainless covered leaves.
Ertel 6" & 10" Disc type.
FILTER PRESSES—6" to 36" Iron & Wood.
KETTLES—Stainless Jack. 20 to 500 gals.
Dopp 350 gal. Cast Iron Jack Vacuum.
Devine Impreg. Units 30" & 36" dia.
Steel. Alum & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000
Mikro Pulverizer #4. 2S1. 2TH. 1SH.
Hammer Mills & Pulverizers 3 to 50 HP.
Williams #3 & #2XX Hammer Mills.
Rotary Cutters 1 HP & up.
Spr Wald. Stainless Spike Crusher.
Pebble, Jar & Ball Mills. Lab to 6' x 8'.
3 Roll, 9" x 32", 12" x 30", 16" x 40"
Lehmann 4 Roll W C. 12" x 36" Steel
MIXERS—Baker Perkins 100 gal. Jack.
Day Imperial 75 & 150 gal
Change Can Pony Mixers 8, 15 & 40.
Day Jumbo 700 gal horiz Mixer.
Sprout-Waldron 10,000# horiz. Spiral Mixer
Blystone 3000# horiz. spiral Mixer
Day 1000# horiz. Dry ribbon Mixer.
Dry Spiral Mixers 50 to 3000#.
Lancaster 6' dia 25 HP & #1. 3 HP.
PUMPS—Vacuum 10 to 500 CFM.
Gould 75 HP Centrifugal 250 PSI.
SIFTERS—Day, Robinson Rotex type.
SOAP MACHINERY—Toilet. Laundry, etc.
TABLET MACHINES—Stokes Rotary RD3, Colton 4½T & 2B single punch.
TANKS—Stainless, GI. Lined, Steel.
MISC.—Boilers Gas & Oil. Conveyors.

Partial Listings — Write for Bulletins

STEIN EQUIP'T. CO.
107 8th St., Brooklyn 15, New York
STerling 8-1944

PULVERIZER—3 HP #00 Sturtevant—10HP 2TH Mikro—30 HP Raymond—50 HP 3TH Mikro (unused).

DUST COLLECTOR—Mikro Model 36-1-84—Sly 43"x77"x73½" H-459-D.

SCREENS—12"x72" S/S—20x84 Rotex—20x96 Rotex—3x5, 3x10 Tyler Hummer—30x68 Jeffrey.

MIXERS—1 c.f., 20 c.f. double cone—30 c.f. Patterson Kelly—12 c.f., 22 c.f. Ribbon—40 gal. S/S Pony—60 gal. Post—1 HP 1150 RPM Lightnin'.

FEEDERS—4¼"x24", 24"x72" Syntron S/S—Draver controlled rate, Hardinge Constant Weight.

AIR CLASSIFIERS—Gayco 30"—Sturtevant 36"—Gayco 5', all w/motor drives.

KETTLES—24x30 S/S 125 PSI, Jacket 75 PSI—S/S lined 150 gal. 40 PSI, Jacket 75 PSI.

LAWLER COMPANY
LAWLER PLACE METUCHEN, N. J.
L'BERTY 9-0245

A SELL-OUT BEFORE MOVING

Conical Dry Mixer 192 cu. ft. vol.; 125 cu. ft. opr. vol., with 15 H.P. Unibrake Motor.
4—Werner & Pfleiderer 200 gal. jktd., sigma blade Shredders.
1—Ball & Jewell #2 Cutter.
4—Link-Belt Vibrating Screens 4' x 8'.
1—Jeffrey Vibrating Conveyor.
1—30" Sperry Filter closed del., 3-eye, 39-plates, 40-frames.
1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor, 2-drums balls. Like new.
1—Schutz-O'Neill Pulverizer 22", Style D.
1—Abbe Pebble Mill 5' x 22'.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
1—2 qt. Sigma Blade S.S. Mixer.
1—250 gal. Kettle, nickel jacket, 100#.
1—Bartlett Hog Mill with 7½ H.P. motor.
1—430 S.S. Tank 3000 gal. vert. ⅜ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5" bore 4" stroke, with 7-½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
2—Aetna Water Stills 20 gph, new.

Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Stainless Steel & Brass Valves. Advise us as to your requirements.

H. LOEB & SON 4643 LANCASTER AVE., PHILADELPHIA 31, PA.

EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

1—Struthers Wells 1000 gal. SS jacketed reactor, complete with agitator and drive, 50 psi jacket, 15 psi internal, NEW.

3—Struthers Wells 2000 gal. type 316 SS reactors, complete with impeller type agitators and drives.

1—Struthers Wells type 316 SS 400 gal. reactor, complete with coils, impeller type agitator and drive, 250 psi coils.

2—Pfaudler 300 gal. SS jacketed reactors, 75 psi jacket, 76 psi internal.

1—Pfaudler 200 gal. type 316 SS jacketed reactor, 75 psi jacket, 25 psi internal.

1—Nooter 100 gal. type 304 SS jacketed reactor with anchor type agitator.

1—Theo. Walters SS jacketed reactor, 100 gal. cap., with anchor type agitator and drive.

1—Autoclave Engineers type 316 SS, 1 gal. autoclave complete with agitator and drive, coils 1200 psi W.P.

1—Stainless steel 18,000 gal. pressure tank, 60 psi.

2—Storage tanks type 316 stainless steel, 4500 gal.

2—Pfaudler 500 gal. Series R 60 glass lined jacketed reactors, with impeller type agitators, baffle and drive, NEW.

1—Stainless steel vertical 3000 gal. storage tank.

1—Pfaudler 300 gal. Series R glass lined jacketed reactor with impeller type agitator, baffle and drive, NEW.

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AGITATORS: (15) PATTERSON, NETTCO-LIGHTNIN Agitators ¾ to 20 HP.

PUMPS: (1) GARDNER-DENVER Vac., 30 HP motor; (2) AURORA 24L Deep Well, 200 HP motors, 5000 gpm; (2) BYRON JACKSON Deep Well 75 & 125 HP motors, 600 & 1000 gpm; (60) LABOUR, WORTHINGTON, DURCO I.R. Centrifugal Pumps, S.S. and Everdur, 1" to 5".

DRYERS & KILNS: (1) Rotary Kiln, 6' dia. x 60' long, ⅜" shell; (1) Rotary Furnace 7' dia. x 12' long.

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GATT Negotiators Hear Cry of Chemical Trade

—*Continued from page 3*

the Synthetic Organic Chemical Manufacturers Association. He was supported by briefs or testimony of several score products, both large and small, directing their fire at specific items or groups of items.

Lead-off witness at the hearings, however, was a spokesman for the Japanese exporters, Nelson A. Stitt of the US-Japanese Trade Council, who said it was "mystifying that this outstanding growth industry, which last year exported about $1.5 billion in chemicals and related products while meeting import competition of only $347 million in the US market, should concern itself with duty reductions which cannot exceed 20 percent."

"Current rates under Schedule 1 (chemicals) are by no means low and it would seem an impossible task for the industry to demonstrate a need for protection at present levels," he stated.

Cites Monosodium Glutamate

He appealed specifically for lower tariffs on monosodium glutamte, imports of which last year amounted to $742,000 against US producer sales of $19 million, and for lower duties on cellulose articles.

Mr. Baker assailed the use of basket clause description of chemical items to be traded, charging that this includes thousands of items not only presently laboratory items but those yet to be discovered.

The all-embracing effect of basket-clause descriptions, Mr. Baker noted, can be illustrated by citing the product list reference to "textile assistants." This could cover no less than 7,000 separate chemical items, he stated.

He urged that there be no reductions in import duties in any basket provisions because intelligent consideration is impossible without item by item listing of the articles involved. He also asked that chemicals essential to national defense and security be removed from the list.

Crayton R. Black, manager of trade relations for E. I. duPont de Nemours & Co., Wilmington, Del., challenged the inclusion of "textile assistants" on the list, pointing out that these products vary widely in purpose and price and are extremely competitive already since there are over one hundred American companies producing them now.

He also assailed the wisdom of putting sodium hydrosulfite on the bargaining list. There are six manufacturers of this product with competition so keen, he stated, that the difference of 1/10c. per pound often wins or loses a sale.

Foreign supplies of the material are entering the country in spite of existing tariffs and are being offered for sale at less than domestic industry prices, Mr. Black said. He predicted that a cut in the tariff will drive the six US producers out of this product line.

The Bureau of Customs is currently investigating imports of sodium hydrosulfite on charges of antidumping act violations.

Jap Dyes Important Competitor

Mr. Black said that Japanese dyes are becoming an important competitor in the American market, and the dyes posted on the bargaining list are largely items on which profit margins are small to begin with. Present duties are no barrier to imports and the foreign cartels need no help from this country, he declared.

James J. Marshall, of Koppers Company, chemicals and dyestuffs division, Pittsburgh, Pa., protested any proposed duty reductions on ortho-anisidine, ortho-acetoacet-anisidide, ortho-anisidide, and vat blue 6. He said that ortho-anisidine is now being landed in this country from abroad at less than Koppers' production cost and any further duty reduction would simply add to importers profits.

Koppers is the only producer of ortho-acetoacet-anisidide and these arrivals are coming into the country at less than the American selling price, and imports are climbing. In the case of vat blue 6, any reduction in present duties on this dye would be disastrous to American producers.

Dyestuffs Not Expanding Industry

He asserted that the dyestuffs industry is not an expanding one and is finding it harder and harder to hold its position.

Also attacking the proposed duty reductions on dyestuffs, C. Kenneth Egeler, Sherwin-Williams Company executive and president of the Dry Color Manufacturers Association, charged that the Bureau of Customs is improperly classifying many foreign entries as inks and other materials when they should fall under the dyestuffs category.

He also said that "somebody goofed badly" when they included chrome colors on the list for tariff reductions. He said that in view of the troubles the government has been having over imports of lead and zinc into this country, it is difficult to understand why it should consider tariff reductions on chrome pigments, which constitute about 10 percent of the lead and zinc imports.

He emphasized the importance of a domestic chrome pigments industry to national defense, pointing out that during World War II these plants were among the chief producers of Napalm.

Mr. Egeler's testimony was bolstered by that of Nelson S. Knaggs, of Hilton-Davis Chemical Company, Cincinnati Ohio, and two other association members, Robert Bonnie, and Harold Porter, of Louisville.

Brazilian Customers Complain

Mr. Knaggs read several excerpts from letters from his customers in Brazil voicing strong complaints over prices charged for color products by American suppliers. The letters indicated that Germany and Japan were underselling the American products on the Brazilian market by as much as 50 percent.

The witness said that the Brazilian customers seemed unable to understand how this could be so because they have the impression that US producers can turn out color products on a continuous production line basis with very little labor involved.

The truth of the matter is that labor is an important factor of cost in the color industry he explained, and the low prices to which German and Japanese colors are being offered is conclusive proof of the wide variations in cost between US and other world suppliers.

Mr. Bonnie, speaking for the color division of Harshaw Chemical Company, Cincinnati, also quoted from letters from foreign producers received by some of his customers in this country offering foreign chrome and cadmium colors at prices far below his quotations. He said the "peril point" has already been reached by the US color industry and American tariffs should be increased rather than decreased.

German offerings of cyclohexylamine are being made to east coast buyers at prices 7½ cents a pound below the delivered price of Abbott Laboratories, L. R.

—*Continued on page 75*

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SAN FRANCISCO (Sutter 1-5568)—Robert W. Walker Company, 57 Post Street, San Francisco

Aliphatic Organics

—Continued from page 45

Customs bureau, at $5,505. Buying carbon tet from the US were: Mexico 10,500 pounds at $2,520; Chile 9,100 pounds at $1,202; Peru 1,344 pounds at $208; and Afghanistan 990 pounds at $1,575.

Currently, demand for carbon tet is reported running slow with the outlook for a routine third quarter all around.

Ethyl Alcohol—Requirements for ethyl alcohol are reported excellent, with indications that the trade is operating at optimum capacity. In addition to the large quantities of the chemical being used as an intermediate in the manufacture of other products, consumption in such things as toilet goods and liquid detergents of the light-duty class is running into big volume.

Indicating that spot shortages may still exist, alcohol imports in May rose to 2,365,766 gallons from slightly less than a million gallons the month before. All of this material came from Brazil and was unloaded at Galveston, Tex.

Exports of ethyl alcohol in May were 2,050 gallons, valued at $1,968. Buyers were Liberia (972 at $710), Honduras (550 at $442), Bermuda (288 at $420), and North Antilles (240 at $396).

Ethylene Glycol—After dropping to 1.6 million pounds in April from 18 million pounds in March, exports of ethylene glycol rose once again in May. Total quantity exported that month was 15,653,589 pounds, valued at $1,676,471.

Buying from the US were: Belgium 6,747,462 pounds at $630,652; the Netherlands 5,575,215 pounds at $637,914; Canada 2,562,290 pounds at $314,347; and Japan 488,205 pounds at $53,810.

Gluconic Acid—A new schedule for technical (50 percent) gluconic acid, from 1½ to 3½ cents a pound higher than that previously quoted, was established July 5. The tankcar price became 17c. a pound; the car or truckload 20c. a pound; and the 10,000-pound lot quote 21c. a pound, f.o.b. plant with freight prepaid to destination in the continental US by carrier of producer's choice.

Prices given above are for eastern deliveries; for shipments to points west of Denver listings are uniformly 1½ cents a pound higher.

Buyer resentment to the higher prices should be minimal, as today's schedule is a carbon copy of that current from 1957 to mid-1959, when process improvements and the desire to expand usage prompted the manufacturer to lower prices.

According to a spokesman for the gluconic acid producer which made the change, rising costs prevented retention of the old schedule.

Although there are no new end-uses for gluconic acid, consumption of the chemical has risen steadily as established markets expanded.

Traditional outlets for the acid include bottle washing, rust removal, and various processes where the prevention of the precipitation by alkalies of iron, aluminum, etc., is desirable.

Glycerine—The American Soap & Glycerine Producers Association last week issued the complete glycerine statistical summary for May. This report shows that glycerine producers held stocks equivalent to a 100-day supply at the beginning of June, a record high. Entering 1960, producers had on hand about a 75-day supply but each month thereafter their inventories rose until the normal, 90-day level was reached in May. (Stocks totaled 67.3 million pounds on June 1, compared with 61.8 million thirty days earlier.)

Production of glycerine in May was 28.8 million pounds, and exceeded disappearance by 6.2 million pounds. April output was 25.4 million pounds and exceeded disappearance by 1.7 million.

May exports, slightly above the April figure, totaled 1,148,931 pounds and were valued at $272,430, according to the Commerce department. Buying from the US were: Canada 851,902 pounds at $187,640; Union of South Africa 135,677 at $39,297; and Cuba 96,492 at $26,645.

Methanol—From a high of 4 million gallons in March, exports of methanol dropped to 2.7 million in April and then to 1.59 million in May. Valued at $422,626, shipments the last month went to West Germany 1,062,576 gallons at $230,075; the Union of South Africa 346,989 gallons at $120,646; and Mexico 102,523 gallons at $33,032.

For a long, hard look at the methanol picture, especially the international developments in this market that continues to grow bigger, see OPD's depth-story which begins on page 3 of this issue.

Methyl Isoamyl Ketone — Methyl isoamyl ketone is now available in commercial quantities from a leading manufacturer of chemical solvents. Priced at 17½c. a pound delivered in tankcar lots, it reportedly represents the most economical, high-boiling solvent (145.4 degrees C.) for vinyl and nitrocellulose lacquers.

The higher dilution rate of methyl isoamyl ketone compared with other high-boiling solvents used in these applications also provides added savings on formulating costs, a spokesman for the manufacturer maintains. In addition, he says the chemical contributes lower viscosities, has a high relative evaporation rate, and offers excellent blush resistance.

Molasses—Cuban production of blackstrap molasses from the 1960 sugar cane grindings amounting to 285.1 million gallons on June 15. This compared with production off 300.9 million gallons by the same date last year. Cane grindings in Cuba are almost complete for this season, Agricultural Marketing Service reports.

Markets for feeding cane molasses strengthened at New Orleans but held steady at most other areas during the week ended July 5. Reason for the strength at the port city was said to be due mainly to the possible effect of recent and anticipated political developments in Cuba on possible supplies of molasses from that country.

Vinyl Acetate—Imports of vinyl acetate monomer in May totaled 2,779,340 pounds, and were valued at $470,396 and dutied at $64,091, the Census bureau reports.

Shipping here were Canada 2,759,340 pounds, valued at $461,636 and dutied at $63,295; and Japan 20,000 pounds, valued at $8,760 and dutied at $796.

The same month, imports of polyvinyl acetate were 114,952 pounds valued at $57,436 and dutied at $5,018. Of the three suppliers, the biggest by far was Japan, shipping 114,046 pounds, valued at $56,526 and dutied at $4,953. The remainder came from the Netherlands (470 pounds, valued at $272, dutied at $22), and Canada (436 pounds, valued at $638, dutied at $43).

A major US chemical firm recently announced plans to build a vinyl acetate monomer facility having an initial capacity of 50 million pounds a year. Location of the new unit was not disclosed but the firm indicated it would be put up near the plant of any one of several acetylene suppliers with whom negotiations are now under way.

When brought on stream, this additional capacity could cut into import volume which appears headed upward in '60. Through May, inshipments of the monomer amounted to 19,570,566 pounds. This is better than half of the total quantity brought in during 1957—33,177,194 pounds—and almost half of imports in all of '59—39,322,837 pounds.

GATT Negotiators Hear Cry of Chemical Trade

—Continued from page 74

Lee, counsel for the company, testified. Abbott and Monsanto Chemical company, St. Louis, Mo., are the only two producers of the chemical in this country.

This chemical, he explained, has an important use as an accelerator in the synthetic rubber industry, and also has an important end product, cyclamate, which can be used as a sweetening agent for diabetics. While imports at present are not substantial, amounting to about 10 percent of domestic production, it is anticipated that they will be increased, he said, and become detrimental to the domestic industry. He estimated domestic production at about 4.5 million pounds annually.

H. F. Shattuck, of Monsanto Chemical Company, made a broad attack on the whole trade agreements program. He said that the concessions that had been granted on chemicals in the past fifteen years have been damaging to the industry and any further cuts can only mean added price advantages to foreign producers.

Cites Disruptive Effects

He said that chemical imports have had disruptive effects on the American industry, far beyond the proportion of either their quantity or value. This is because many chemical products are by-products of other chemical items and when imports of by-products increase, they reflect back not only on the market for the American by-product but on the market for the original product.

He urged the removal of all of the products on the list that his company produces, and also that the Tariff Commission recommend an increase in duties on saccharine and dicalcium sulfate.

A. B. Clow, of American Cyanamid Company, New York attacked the proposed [illegible] a broad range of vat dyes and intermediates. He also emphasized the chain reaction effect of cutting the duties on one chemical product that is a by-product of another chemical. He said any reduction in duties on chemicals would weaken national defense by reducing the capabilities of the industry.

Charles H. Love, of C. K. Williams Company, New York, protested a duty reduction on cuprous oxide, charging that the imported material is already underselling the American product by as much as 16 cents a pound.

CCC Turpentine Offered For Export, Domestic Use

Commodity Credit Corporation has put its 4,415-barrel inventory of gum turpentine on sale for export and unrestricted use. The sale was slated to get underway July 11.

Turpentine for export sale was to be handled directly by CCC on a competitive bid basis. American Turpentine Farmers Association Cooperative was named to handle sales for unrestricted use at announced prices.

Sales are under terms and conditions of Department of Agriculture's announcement TB-21-60 and supplements to that announcement mailed subsequently. The turpentine is stored in 50-gallon barrels at six warehouse locations.

The quantity of turpentine offered represents the only naval stores stocks held by CCC. All offers were to be made by telegram.

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